

Jones County Farm and Forest Protection Plan

Prepared by
Leslie Purcell McCormick
August 2011

Table of Contents

Acknowledgements	2
Executive Summary	5
Statement of Need for Action.....	7
Attributes of Jones County	8
Demographics.....	8
Economy.....	10
Infrastructure.....	13
Climate.....	15
Soils	18
The State of Agriculture in Jones County	21
Farm Characteristics	21
Farm Labor.....	23
Farm Economics	23
Major Products	29
Water and Irrigation	30
Forestry	33
Forest Products Industry	36
Agritourism.....	37
Biofuels/Bioenergy	39
County Surveys	41
Non-Farmer Survey	41
Agribusiness Survey	43
Producer Survey.....	47
Programs and Resources That Support Working Lands.....	53
Recommendations.....	58
References	67
Appendixes	70

Acknowledgements

The North Carolina's Eastern Region (NCER), with funding from the North Carolina Department of Agriculture and Consumer Services Agricultural Development and Farmland Preservation Trust Fund, contracted with Mount Olive College's Lois G. Britt Agribusiness Center to create farm and forest protection plans in a four-county region. NCER's mission is to identify barriers and generate regional strategies for economic growth. NCER recognizes and supports the agricultural industry in eastern North Carolina and is committed to identifying economic development opportunities for agricultural producers and agribusinesses.

Leslie Purcell McCormick researched and wrote the Jones County Farm and Forest Protection Plan. Ms. McCormick has a master's degree in journalism from the University of North Carolina at Chapel Hill, served as director of communications for the N.C. Forestry Association, and currently works as association manager for the N.C. Chapter of the Association of Consulting Foresters and as secretary/treasurer of the N.C. Tree Farm Program.

Editors for the plan were Grace Lawrence and Sandy Maddox. Ms. Lawrence has a master's degree in education and has worked in the environmental field for more than 15 years. Dr. Maddox has a doctorate degree in adult education, is the director of the Lois G. Britt Agribusiness Center at Mount Olive College and has more than 30 years of experience in agriculture.

The Jones County team listed below reviewed the plan and made recommendations:

***N.C. Cooperative Extension,
Jones County Center***
Ivy Reid, Jacob Morgan
Jimmy Franck, retired director

***Jones County Soil and Water Conservation
District***
Keith Metts, Caroline Sisley

Jones County
Franky Howard, County Manager

N.C. Farm Bureau
Trent Scott

Jones County Tax Office
Wayne Vanderford, Brandon Sutton, GIS

Farmers, Jones County
Brent Riggs, Jeremy Rouse, Thomas Waller,
Sam Davis

Forester, Jones County
Charles Jones

***N.C. Forest Service,
Jones County***
Wayne Bell

Jones County Economic Development
Larry Meadows

***N.C. Department of Environment and
Natural Resources***
Jerry Dorsett, Working Lands Coordinator



MOUNT OLIVE COLLEGE

LOIS G. BRITT
AGRIBUSINESS CENTER





**This project received support from the
N.C. Agricultural Development and
Farmland Preservation Trust Fund.**

Executive Summary

Agriculture and forestry, which employ more than one-fourth of Jones County residents and account for 70 percent of the total county value-added income, continue to be a core part of the Jones County economy and culture. Farmers are seeing a significant increase in their product's market value, production expenses have remained steady*, the county has scattered instances of crop loss as a result of drought conditions prevalent in much of the state, and the industry enjoys widespread support in the community. Many agribusinesses and farmers have expanded their operations over the last five years and expect to expand in the next five years. Jones County has avoided the development pressures other counties in the region are facing, but as farmers transition and retire, these pressures may change.

Even with this positive economic, environmental and social environment, Jones County agriculture faces challenges in the coming years. The number of acres in production is declining, farms are getting smaller, more principle operators are supplementing their farm income with jobs off the farm and there are fewer farmers to continue the agricultural operations when today's farmers retire. Among the major factors affecting the future of agriculture in Jones County are:

- An aging farmer population
- Absentee landowners
- An increase in small and part-time farms
- Inadequate access to agricultural education in the community
- Insufficient local markets for agricultural and timber products
- Inadequate transition planning
- Declining influence in the N.C. Legislature and Congress as North Carolina becomes more urbanized.

This Farm and Forest Protection Plan provides an overview of the current state of agriculture and forestry in Jones County and offers recommendations and implementation strategies for ensuring the economic vitality of working lands in the future. The recommendations are:

- Adopt the Jones County Farm and Forest Protection Plan as a tool to guide county programs and policies related to agriculture.
- Advocate for Jones County and rural North Carolina in efforts related to agriculture and forestry at all legislative levels.
- Expand participation in the Voluntary Agricultural District Program.
- Adopt the Enhanced Voluntary Agricultural District Program.

- Educate landowners about available financial and technical resources.
- Increase the number of acres that are under an active forest management plan.
- Develop a mentor program for beginning farmers.
- Educate young people about agriculture and encourage farming as a career.
- Include agriculture and agribusiness as a permanent part of the economic development plan for Jones County.
- Implement a multi-county “buy local” campaign.
- Support continued funding for the Highway 17 expansion.
- Offer continuing education programs for farmers and agribusiness owners.

These recommendations are intended to influence Jones County’s long-term policy in support of farms and forests and to provide short-term program strategies toward that goal.

Implementation of these recommendations will require the full and on-going support of local decision makers, producers, agribusinesses, government agencies, schools and the community at large.

The intent of this plan is neither to limit nor restrict landowners’ rights and uses. The plan is intended to serve as a guide for actions to provide landowners and residents an increased awareness of agriculture and farmland preservation opportunities. Agriculture is important to the county and its economy and to the well-being of family farms. However, the ultimate decision of farmland preservation rests in the hands of the owners of farms and forests.

**While the U.S. Census of Agriculture from 2002 and 2007 showed that production expenses remained steady, Jones County producers report that expenses have increased over the past four years.*

This report defines agriculture in accordance with N.C. General Statute: G.S. 105-277.2 through 105-277.7, which states that agriculture is: at least five acres of land in horticultural production with an income of at least \$1,000, 10 acres of land in agricultural production with an income of at least \$1,000, and/or 20 acres of forest land. All these activities are carried out with sound management plans.

Statement of Need for Action

North Carolina's food, fiber and forestry business sector is the state's number-one industry, providing 17 percent of the state's jobs and accounting for 18 percent of the gross state product. But the state's population growth over the past few decades has put pressure on agricultural land as the demand for housing, infrastructure and services has increased. From 2002 to 2007, North Carolina lost 604,000 acres of farmland and trended toward more numerous but smaller farms. Jones County showed similar trends during that time frame, adding five farms but losing nearly 7,000 acres of farmland. (U.S. Census of Agriculture, 2002, 2007)

While Jones County hasn't experienced the same population growth that other areas of the state have and is not expected to see any significant increase for the next couple of decades, it is still affected by the state's increasing urbanization. Fewer people have a tie to the land or understand the contributions and needs of rural communities. And the influence that Jones County and other rural areas once enjoyed in legislative and congressional decisions is diluted as a greater percentage of representation comes from urban areas. This diminished voice puts funds and programs that support agriculture, rural economic development and infrastructure improvement at greater risk.

In addition to the county's declining influence in policy decisions, Jones County farmers are aging, and there are too few young farmers to continue their legacy once they retire. The outmigration of young people who pursue careers other than farming has led to an increasing number of absentee landowners who have little or no attachment to the land. These landowners are more likely to sell agricultural or timber land for other purposes if the opportunity arises.

Jones County's challenges are to:

- Support current producers and agribusinesses as they work to sustain and expand their operations
- Encourage young people to pursue farming as a career and support them in that effort
- Provide the education, programs, policies and market access that producers need to be successful.

This Farm and Forest Protection Plan presents an overview of the current state of agriculture in Jones County and a vision for strengthening the county's agricultural economy and preserving its natural and cultural resources. When adopted, the plan will become a part of the county's land-use plan, heighten community awareness of the importance of working lands to Jones County and increase the county's access to grants related to farmland preservation.

Attributes of Jones County

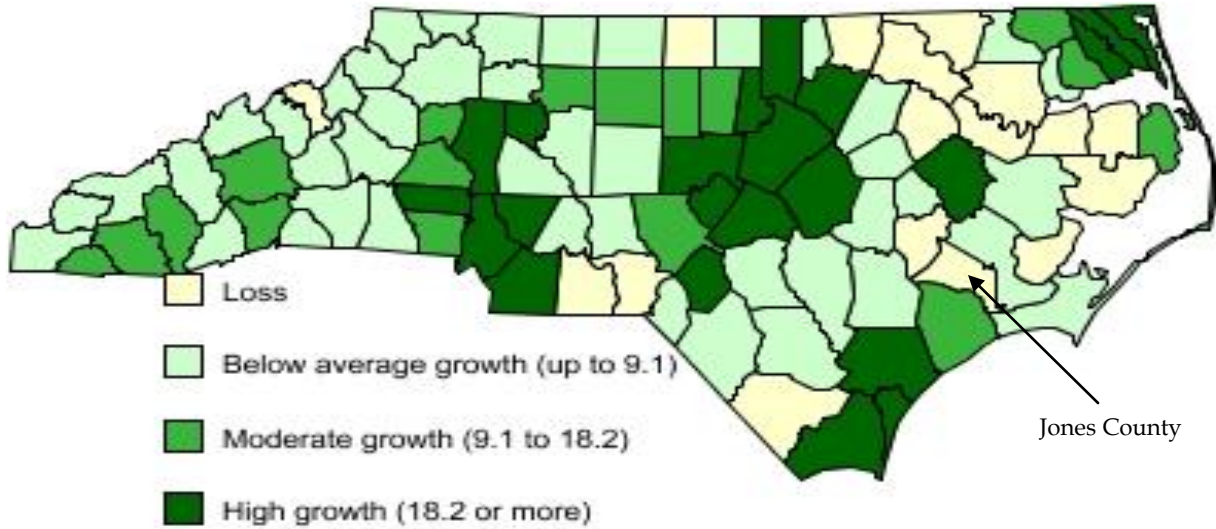
Demographics

Jones County Overall

According to the 2010 U.S. Census, Jones County has a population of 10,153 residents. This number is up slightly from the previous year when there are 10,071 residents, but down slightly from the 2000 Census when there are 10,381 people living in the county. (U.S. Census, 2000, 2009, 2010) (Figure 1.) The county population has remained essentially unchanged since 1930 when there were 10,428 residents in the county. The N.C. Department of Commerce population projections anticipate no significant increase in population in the county for the next 60 years. (Jones County North Carolina Demographic Profile, N.C. Department of Commerce, Division of Community Planning, 21st Century Communities Program) (Figure 2) The Office of State Budget and Management anticipates a decline in county population to 10,160 by 2030 due to a death rate that exceeds births by 278 and an out-migration of 280 people between 2020 and 2030.

Most (65.8 percent) of the people who live in Jones County are white, about one-third (32.4 percent) are African American, and only 4.4 percent are Hispanic or Latino. The median age in 2009 was 43.7 years, up from 39.1 years in 2000. This shows a natural aging of the population and a likely out-migration of younger residents. A declining birth rate also contributes to this as evidenced by a decline in the number of residents under the age of five years: 626 or 6 percent in 2000 and 514 or 5.1 percent in 2009. Residents over the age of 55 increased from 25.8 percent in 2000 to 31.6 percent in 2009.

Figure 1. N.C. Population Growth by County 2000-2009



Source: U.S. Census, 2010

Figure 2. Jones County Population Projection

Year	Population
2020	10,525
2030	10,611
2040	10,698
2050	10,784
2060	10,870
2070	10,957

Source: 2010 Census Redistricting Data (Public Law 94-171) Summary File, Table P-2

Farmer Demographics

According to the 2007 Census of Agriculture, the average age of principal operators in Jones County was 56.1 years, up from 53.3 in 2002 but still below the 2007 state average of 57.1 years for farmers. (U.S. Census of Agriculture, 2007) The median age for all North Carolinians is 36.9 years (U.S. Census, 2010) and for Jones County, the median age in 2009 was 42 years. (N.C. Department of Commerce)

Most Jones County farmers are white (84 percent) and male (95 percent). While there was an 80 percent increase in the number of African American farmers during this time (from 10 in 2001 to 18 in 2007), the number of Hispanic operators decreased by more than 50 percent from 15 to seven. (USDA Census of Agriculture, 2002, 2007). (Local agriculture agencies contest the validity of this information and note that in 2011 there are no Hispanic farmers and only three African American farmers currently producing commodities.)

Education

Jones County residents have a lower overall educational level than the state average. In 2000, 27.8 percent of county residents over the age of 25 had not completed high school in comparison to 21.9 percent for the state as a whole. Only 9.5 percent of Jones County residents completed college, compared to 22.5 percent of the state population. (U.S. Department of Agriculture, Economic Research Service, www.ers.usda.gov/statefacts/nc)

Economy

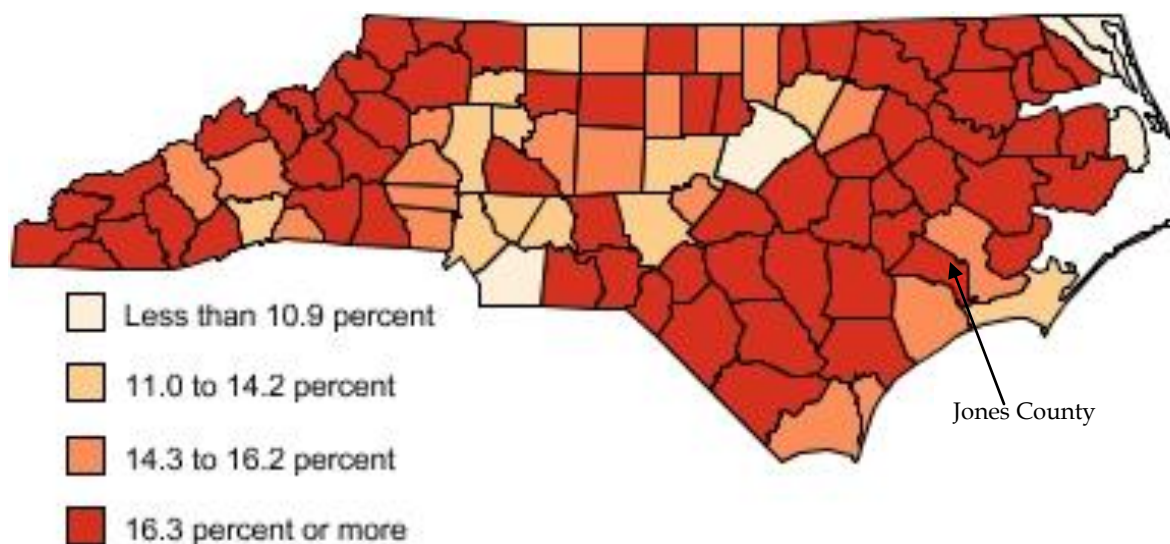
Employment

About 72 percent of Jones County residents work outside of the county, with most working in Craven (30.8 percent), Lenoir (17.9 percent) and Onslow (14.8 percent) counties. Jones County's unemployment rate of 10.2 percent was below the 2009 state rate of 11.6 percent for rural areas and 10.6 percent overall, (USDA Economic Research Service) but still up from the county's 6.5 percent unemployment rate in 2008. (N.C. Department of Commerce) In 2009, 171 county residents were employed in agriculture or forestry with an average weekly wage of \$420. (N.C. Department of Commerce)

Income

The median household income for Jones County residents in 2009 was \$35,079, about 80.2 percent of the state median household income of \$43,754. (USDA, 2008 County-Level Poverty Rates for N.C., www.ers.usda.gov/data/povertyrates) In 2009, approximately 18.3 percent of Jones County residents lived in poverty, with 29.7 percent of children living in poverty. (USDA Economic Research Service) (Figure 3)

Figure 3. Poverty in North Carolina, 2008

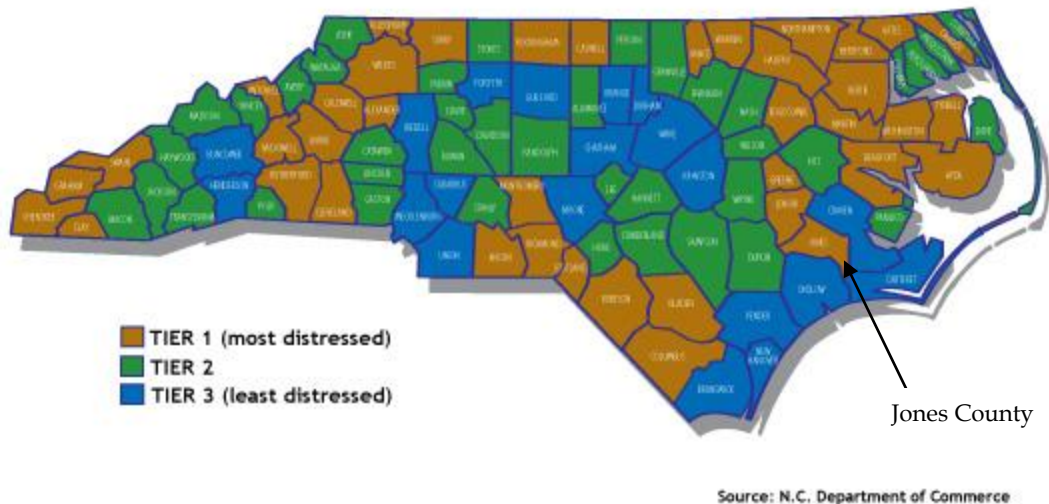


Source: U.S. Census, 2010

Tier 1 Designation

Each year, the N.C. Department of Commerce ranks the counties according to the strength of their economies. The 40 counties that are most economically distressed are designated as Tier 1 counties. In the 2011 ranking, Jones County was included in the Tier 1 list. (Figure 4) The state gives priority to counties in Tier 1 for economic development and access to funds. (N.C. Department of Commerce)

Figure 4. N.C. County Economic Tiers, 2011



Source: N.C. Department of Commerce, 2011

Historically Underutilized Business Zone

Jones County is in a federal Historically Underutilized Business Zone (HUBzone) area, which is similar to the state's tier system. This federal program, administered by the Department of the Army Office of Small Business Programs, creates jobs and stimulates economic development in urban and rural areas by giving preference in government contracts to small businesses located in HUBzone communities. Businesses can get a 10 percent break on government contracts if at least 35 percent of their employees live in the HUBzone area. (Office of Small Business Program, Department of the Army, www.sellingtoarmy.info) To date, the HUBzone designation has been critical to attracting four businesses to Jones County – one in Maysville, two in Pollocksville and one in Trenton. Together they employ 60 people at \$10 to \$25 per hour. (Jones County Economic Development, April 11, 2011)

Property Taxes

The Jones County property tax rate is \$0.74 per \$100 value, in line with other nearby Tier 1 counties, Greene (\$0.756) and Lenoir (\$0.80). Duplin County, designated as Tier 2, has a \$0.69 rate. Neighboring Tier 3 counties Craven and Onslow have lower property tax rates of \$0.4728

and \$0.585, respectively. In fiscal year 2009-2010 annual taxable retail sales for Jones County were \$28.2 million.

Cost of Services

With the help of the American Farmland Trust, 151 counties in the United States, including six in North Carolina, have conducted Cost of Community Services studies to measure the contribution of agricultural land to the local tax base. The studies compared revenues and expenditures based on current land use – commercial/industrial, residential and working lands (defined as farm, forest and/or ranch lands). Expenditures include requirements for services such as schools, roads, fire protection and public safety. The studies found that “working lands generate more public revenues than they receive back in public services.” (American Farmland Trust)

Studies conducted in North Carolina in Alamance, Chatham, Henderson, Orange, Union and Wake counties found that for every dollar in tax revenue generated by working farms and forests, it cost the county an average of \$0.598 in services. This is in comparison to an average cost of \$1.318 for residential land and \$0.298 for commercial and industrial land uses. While agricultural land doesn’t generate as much revenue as residential, commercial or industrial land, farms and forests make far fewer demands on public services or infrastructure. While many communities see the conversion of agricultural land to residential development as a way to increase county revenue, the reality is that residential land usually doesn’t cover its own costs for services and must be subsidized by other land uses. (American Farmland Trust)

Infrastructure

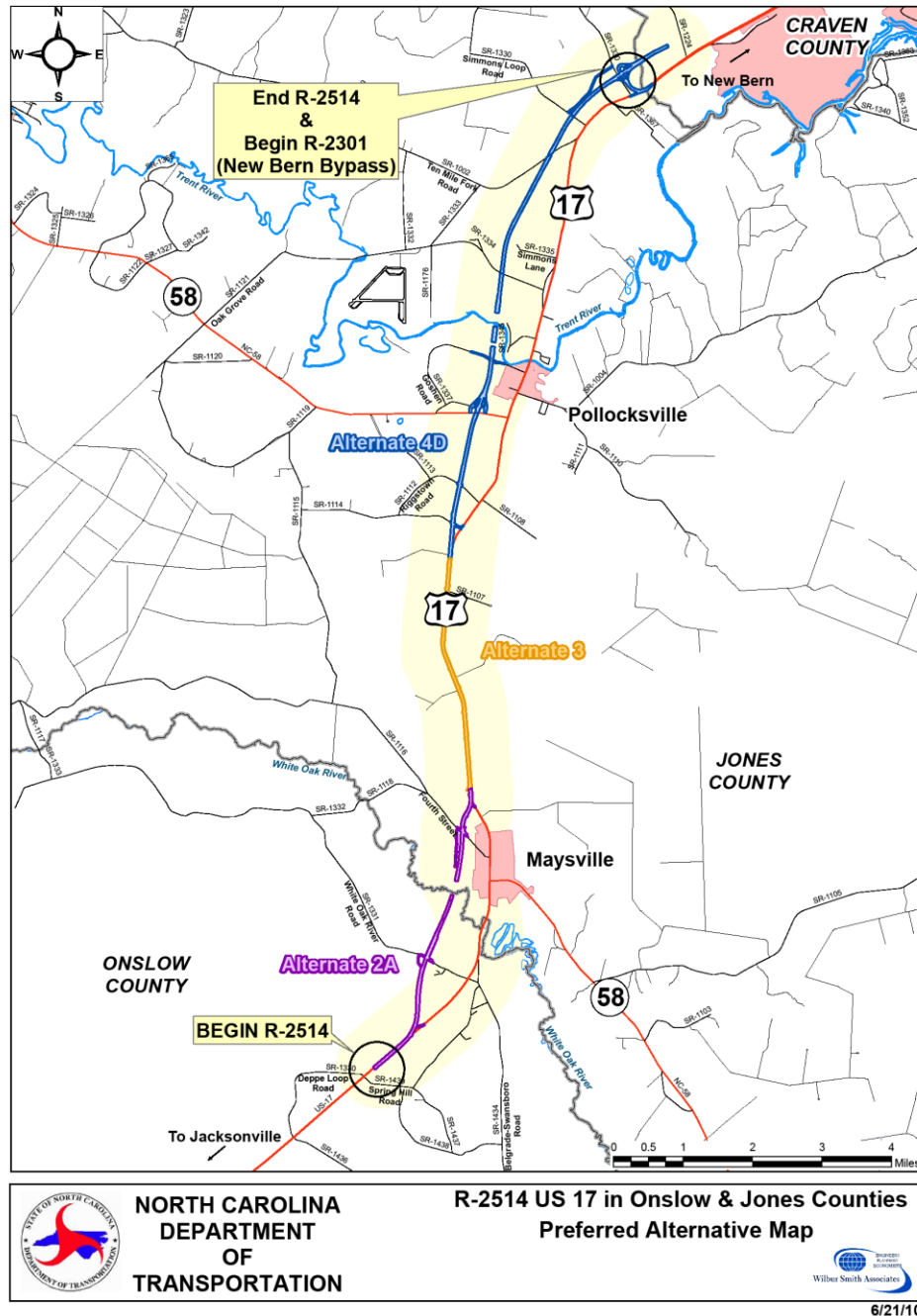
Highway 17

An economic impact study commissioned by the Highway 17 Association and conducted by East Carolina University in 2008 found that investing in infrastructure provides long-term benefits and “is critical to the growth and development of a region in attracting new investment and in enhancing the well being of its communities....” (Wubneh, 2008) The study found that in Jones and neighboring counties expanding Highway 17 – the major north/south highway in the region – to four lanes would provide a number of benefits to the region including improved safety, shorter travel time, more commercial and tourist traffic, reduced transportation costs for businesses and an improved ability to attract and retain businesses. Local leaders agree and have embraced the Highway 17 expansion project as a key to the county’s economic development.

While the final route for the highway expansion will not be determined until November 2011, it is not expected to negatively impact much agricultural land in Jones County. On the contrary, farmers and agribusinesses interviewed for this report think that it will improve their access to

markets and potentially attract more agribusinesses that will provide additional markets for their products. However, there is little expectation that the highway project will improve market access for wood products because the major timber buying companies are not located along the Highway 17 corridor. (Figure 5)

Figure 5. Highway 17 Expansion, Jones County, N.C.



Source: N.C. Department of Transportation

Broadband Internet Access

One of the obstacles to business development in the county is broadband internet access. According to the Jones County Economic Development Office, Jones County had only 40 percent access to broadband technology five years ago, the lowest rate of the 13 counties in the N.C. Eastern Region. With help from the N.C. Rural Economic Development Center in Raleigh, access has improved to 68 percent today. Even with that improvement, Jones County still has one of the lowest broadband coverage rates in the region. Most of the coverage in the county is along main roads, which means many farmers still don't have access. Farmers need broadband to run various aspects of their businesses including buying supplies and equipment, selling their products, marketing their businesses, gaining access to contracts and communicating with customers and business partners.

Similarly, lack of broadband internet access in rural areas is limiting high school student's education in technology. If successful, a recent grant application to the Golden LEAF Foundation will provide laptop computers to local high school students. However many of the students will not be able to complete assignments at home because they live in rural areas without adequate internet service.

Climate

Jones County is located in the lower Neuse River Basin and is an average of 30 feet above sea level. (State Climate Office of N.C.) According to the State Climate Office of North Carolina, Jones County has an average annual precipitation of 53 inches. (Figure 6) The highest normal precipitation is July at 6.22 inches, followed by August with 6.12 inches and September with 5.51 inches. November is the driest month with an average precipitation of 2.93 inches. As of August 9, 2011, most of Jones County was experiencing extreme drought conditions. (Figure 7)

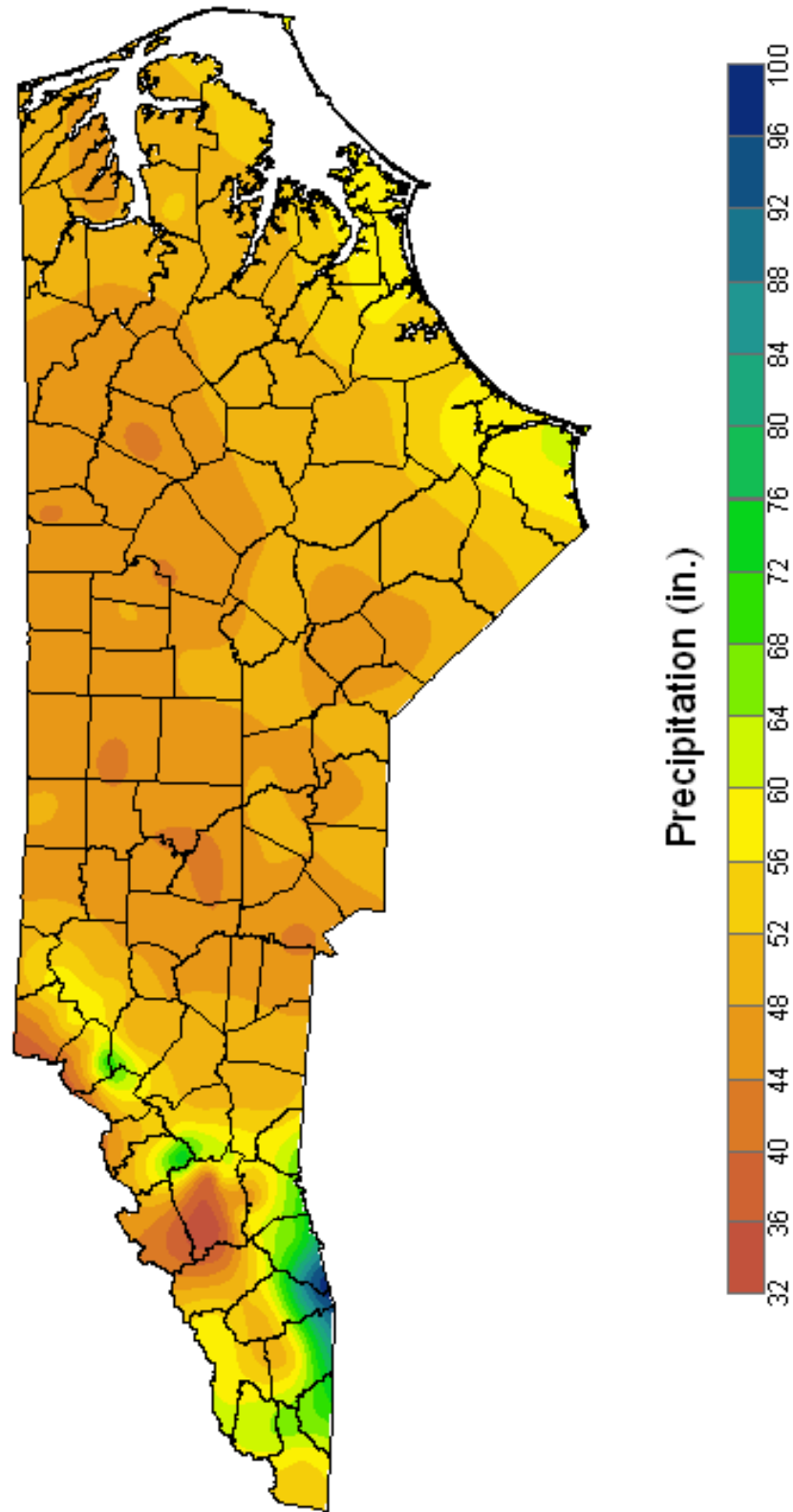
Normal monthly temperature data for Jones County are not available through the State Climate Office of North Carolina, but the nearby Kinston station in Lenoir County, at an average elevation of 24 feet, reports an average normal maximum temperature of 71.5 degrees Fahrenheit and an average normal minimum temperature of 49.3 degrees Fahrenheit. The highest normal monthly temperature occurs in July at 88.5 degrees Fahrenheit, and the lowest normal monthly temperature occurs in January at 30.8 degrees Fahrenheit. The New Bern station in Craven County, which has an average elevation of 19 feet, reports an average normal maximum temperature of 72.4 degrees Fahrenheit and an average normal minimum temperature of 52.2 degrees Fahrenheit. The highest normal monthly temperature occurs in July at 88.3 degrees Fahrenheit, and the lowest normal monthly temperature occurs in January at 33.9 degrees Fahrenheit.

Figure 6.

Normal Precipitation

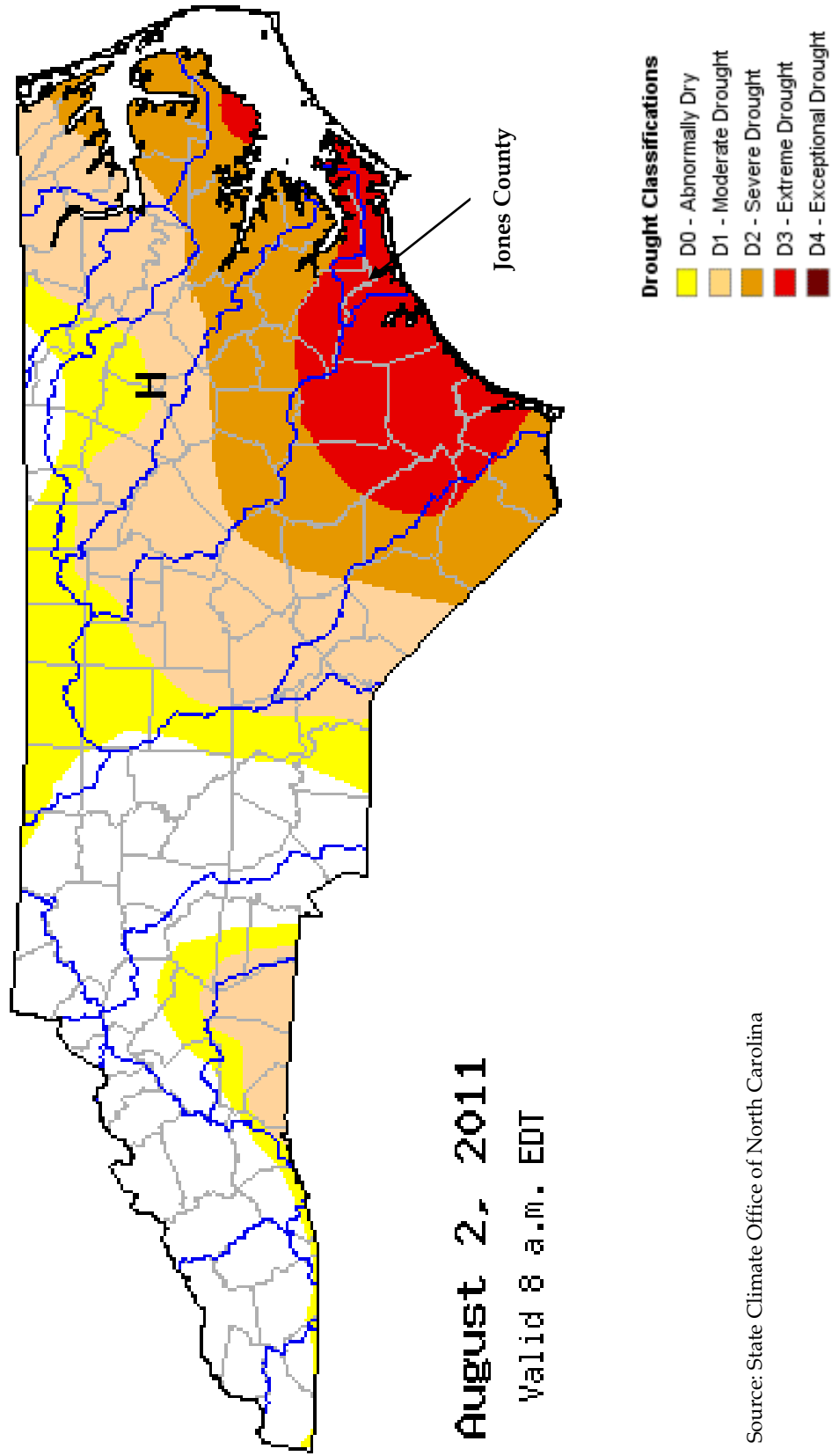
Based on 1971-2000 normals

Annual



Source: State Climate Office of North Carolina

Figure 7.
N.C. Drought Conditions



Source: State Climate Office of North Carolina

Soils

The U.S. Department of Agriculture defines *prime farmland soils* as “soils that are best suited to producing food, feed, forage, fiber and oilseed crops.” (Soil Survey of Jones County, North Carolina, 1981) To be suitable for sustained high-yield agricultural production, areas with these soils must also have adequate but not excessive moisture, sufficiently long growing seasons, acceptable acidity and alkalinity levels, and slopes mainly of 6 percent or less to prevent excessive erosion. The soil must require minimal economic and energy resources to manage, and the land must be available for agricultural use. Using these criteria, the Soil Survey of Jones County found in 1981 that about 12 percent (or 35,600 acres) of Jones County’s 301,576 in total acreage is considered prime farmland. Of all the land suitable for farming (not just the prime farmland), 83 percent has a problem with wetness. But when excess water is controlled with grading or is removed with subsurface and surface drainage, which can vary from shallow furrows between row crops to large open ditches, crops grow well on most of the very poorly drained, poorly drained and somewhat poorly drained soils. (Soil Survey of Jones County, North Carolina, 1981)

Figure 8 shows the soil types and their percentages in Jones County. Figure 9 shows the location of the various soil types within Jones County.

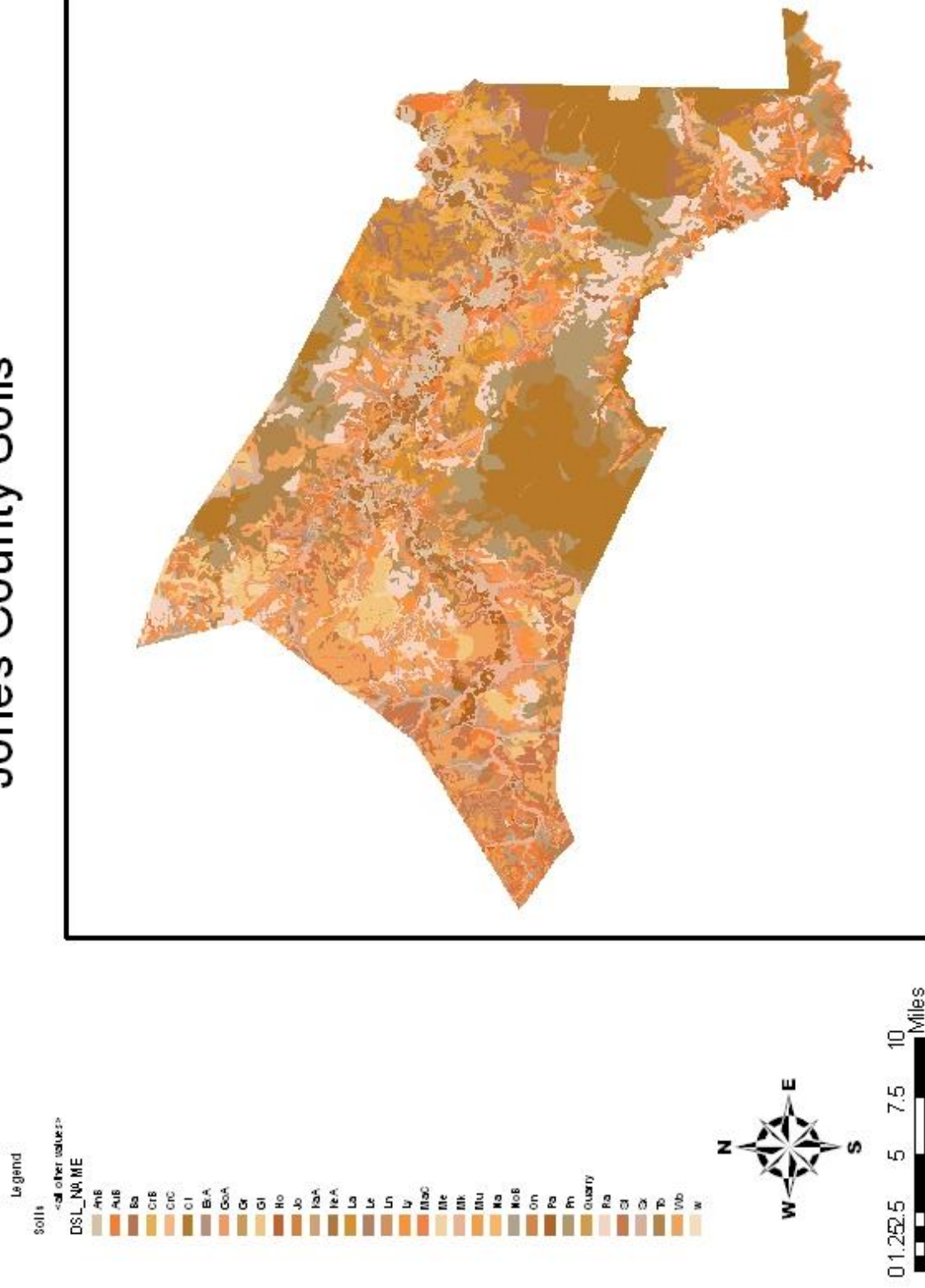
Figure 8. Acreage and Proportionate Extent of the Soils: Jones County

Soil Type	Acres	Percent
Alpin fine sand, 0-6% slopes	4,443	1.5
Autryville loamy fine sand, 0-4% slopes	9,315	3.1
Bayboro loam	4,782	1.6
Craven very fine sandy loam, 1-4% slopes	6,356	2.1
Craven very fine sandy loam, 4-8% slopes	1,431	0.5
Croatan muck	50,810	17.0
Exum very fine sandy loam, 0-2% slopes	837	0.3
Goldsboro loamy sand, 0-2% slopes	12,403	4.1
Grantham loam	837	0.3
Grifton fine sandy loam	5,679	1.9
Hobonny muck	1,345	0.5
Johns fine sandy loam	1,196	0.4
Kalmia loamy sand, 0-3% slopes	956	0.3
Kenansville loamy fine sand, 0-3% slopes	4,364	1.5
Leaf silt loam	13,211	4.4
Lenoir loam	8,369	2.8
Leon sand	5,679	1.9
Lynchburg fine sandy loam	9,863	3.3
Marvyn loamy sand, 6-15% slopes	3,587	1.2
Meggett loam	1,405	0.5
Muckalee loam	17,933	6.0
Murville fine sand	3,587	1.2
Nahunta loam	747	0.2
Norfolk loamy sand, 1-4% slopes	6,964	2.3
Onslow fine sandy loam	6,874	2.3
Pactolus loamy fine sand	1,554	0.5
Pantego loam	27,796	9.3
Rains fine sandy loam	23,014	7.7
Stallings loamy fine sand	13,031	4.4
Stockade fine sandy loam	1,495	0.5
Torhunta fine sandy loam	20,623	6.9
Woodington fine sandy loam	21,221	7.1
Water areas less than 40 acres	7,173	2.4
Total	298,880	100

Source: Soil Survey of Jones County, North Carolina, U.S. Department of Agriculture, Soil Conservation Service and Forest Service, 1981

Figure 9.

Jones County Soils



Source: U.S. Department of Agriculture, Soil Conservation Service and Forest Service, Soil Survey of Jones County, North Carolina,

The State of Agriculture in Jones County

North Carolina's food, fiber and forestry business sector is the state's number-one industry, employing 688,000 or 17 percent of the state's employees and accounting for \$74.3 billion or 18 percent of the gross state product in 2008. (State Agribusiness Values, www.ag-econ.ncsu.edu/faculty) In Jones County, 26 percent of the residents earned their living in agriculture or agribusiness, and the industry accounted for 70.1 percent (\$115,836,951) of the total county value-added income. The majority of the value-added income was from the agriculture/food industries sector at 63.6 percent. Forestry industries were a distant second at 3.7 percent, followed by natural fiber industries at 2.8 percent. (Agriculture and Agribusiness in Jones County, 2008, IMPLAN, Mig, Inc., www.ces.ncsu.edu/depts/agecon/counties/jones) (Figure 10)

Figure 10. Agriculture and Agribusiness in Jones County, 2008

	Agriculture/Food	Natural Fiber	Forestry	Total
Farming	\$100,180,643	\$4,115,813	\$5,011,193	\$109,307,649
Manufacturing	\$438,992	\$121,439	\$950,085	\$1,510,516
Wholesaling/Retailing	\$4,531,938	\$353,137	\$133,711	\$5,018,786
Total	\$105,151,573	\$4,590,389	\$6,094,989	\$115,836,951
% of County Value-Added	63.6	2.8	3.7	70.1%

Source: Walden, Michael. N.C. State University, Department of Agriculture and Resource Economics. "County and Regional Agribusiness Values." www.ag-econ.ncsu.edu/faculty/walden/counties.htm

Farm Characteristics

Agriculture and agribusiness remain strong in Jones County and throughout the state, but the character of the industry is changing. From 2002 to 2007, North Carolina lost 604,000 acres of farmland and trended toward more numerous but smaller farms. Jones County showed similar trends during that time frame, adding five farms but losing nearly 7,000 acres of farmland (from 76,025 acres in 2002 to 69,078 acres in 2007). In that five-year span, the average farm size in the county decreased 12 percent from 494 acres to 434 acres, and the median farm size decreased from 185 acres to 93 acres. During that same time period, there was a 68 percent increase in the

number of farms that are 50 acres or less and a 42 percent decrease in the number of farms that are more than 500 acres. (U.S. Census of Agriculture, 2002, 2007) (Figures 11 and 12)

Jones County is also seeing a trend toward more part-time farmers. In 2002 U.S. Census of Agriculture, 134 principle operators indicated that their primary occupation was farming, and 20 listed their primary occupation as “other.” In 2007, the numbers were 94 and 65 respectively. In addition, 63 principal operators said that they worked 200 days or more off the farm in 2007 in comparison to 42 who worked 200 or more days off the farm in 2002.

The trend toward smaller farms and part-time farms are a concern because small farms tend to have more difficulty making a profit and are thus less likely to remain in business long term. While data is not available on the county level, statewide data from the 2007 Census of Agriculture indicates that farms categorized as limited resource, residential/lifestyle and occupation/lower sales all struggle to stay profitable. In 2007, 59 percent of occupation/lower sales farms, 59 percent of retirement farms, 71 percent of residential/lifestyle farms and 65 percent of limited resource farms experienced net losses. In comparison, only 23 percent of farms categorized as occupation/higher sales had net losses for the year. The average net income for the higher sales farms was \$40,124, while lower sales farms realized an average net income of about - \$1,000, and limited resource farms had an average net income of about - \$3,200. (U.S. Census of Agriculture, 2007)

Figure 11. Jones County Farms by Size

Acres	2002	2007
1 to 9	12	16
10 to 49	20	38
50 to 179	56	51
180 to 499	24	20
500 to 999	19	12
1,000 or more	23	22

Source: USDA Census of Agriculture, 2002, 2007

Figure 12. Jones County Farms by Value of Sales

Value of Sales	2002	2007
Less than \$2,500	36	51
\$2,500 to \$4,999	9	10
\$5,000 to \$9,999	12	3
\$10,000 to \$24,999	5	12
\$25,000 to \$49,999	12	6
\$50,000 to \$99,999	10	7
\$100,000 or more	70	70

Source: U.S. Census of Agriculture, 2002, 2007

Farm Labor

In 2007, 58 Jones County farms reported labor statistics to the U.S. Department of Agriculture's Census of Agriculture. These 58 farms employed a total of 528 workers with a total payroll of \$4,336,000. About half (48 percent) employed one or two workers, and only five farms, 8.6 percent) employed 10 or more workers. Much of the hired labor was seasonal with about 60 percent of the farm labor working 150 days or less in a year. About one-fourth of the farms reported hiring migrant workers in 2007. (USDA Census of Agriculture, 2007)

Farm Economics

Land Rental Rates

In 2009, agricultural land in Jones County rented for \$41.30 to \$64.40 per acre, depending on the land's productivity. This is a lower rate than the average rent for other counties in the N.C. Department of Agriculture's District 80, which includes Beaufort, Carteret, Craven, Greene, Hyde, Johnston, Jones, Lenoir, Pamlico, Pitt, Wayne and Wilson counties. The average for the district ranges from \$41.40 to \$78.70 (N.C. Department of Agriculture and Consumer Services, www.ncagr.gov/stats/economic/economic.htm)

Income and Expenses

Ninety-eight of the 159 Jones County farms surveyed for the 2007 USDA Census of Agriculture reported net gains. The average net gain per farm was \$245,212, up from \$154,815 in 2002 and well above the 2007 state average of \$122,133. Farms with net losses for 2007 averaged \$17,855 in net losses, down from the 2002 average of \$34,019 but above the 2007 state average of \$12,919. (USDA Census of Agriculture, 2002, 2007)

Farm production expenses stayed steady between 2002 and 2007 at about \$530,000 per farm. Across the county, increased costs for fertilizer, lime and soil conditioners (up \$589,000 from 2002 to 2007), livestock (up nearly \$3 million) and feed (up \$6.9 million) were offset by decreased costs in a number of areas, including chemicals (down \$568,000), utilities (down \$2.74 million), hired labor (down \$1.65 million), contract labor (down \$536,000), custom work and custom hauling (down \$544,000), and cash rent for land, buildings and grazing fees (down \$1.11 million). (USDA Census of Agriculture, 2002, 2007)

The estimated market value of land and buildings for Jones County farms was nearly \$193 million in 2007, up from \$171 million in 2002. The average value per farm was \$1,213,000. (USDA Census of Agriculture, 2002, 2007)

Market Value of Agricultural Products

Jones County experienced a 13.4 percent increase in the market value of agricultural products sold from 2002 (\$89,727,000) to 2007 (\$101,723,000). The per-farm average was up nearly 10 percent from \$582,644 in 2002 to \$639,766 in 2007. Grains, oilseeds, dry beans and dry peas saw a 140 percent increase in market value during this time period (\$3,795,000 to \$9,087,000) while livestock, poultry and their products increased 15.6 percent (from \$70,406,000 to \$81,411,000). Hogs and pigs increased 4.8 percent (from \$60,945,000 to \$63,869,000) despite a decrease in inventory during that time period---269,794 in 2002 and 201,120 in 2007. (USDA Census of Agriculture, 2002, 2007) In 2009, Jones County ranked ninth in the state in the number of hogs and pigs in inventory (N.C. Department of Agriculture, www.ncagr.gov/stats/codata/jones.pdf), reversing the earlier trend.

The market value of two commodities fell considerably during this time period. Tobacco decreased about 35 percent (from \$8.1 million to \$5.29 million), and cotton and cottonseed decreased 32 percent (from \$6.8 million to \$4.6 million). (USDA Census of Agriculture, 2002, 2007) These changes were tied to the tobacco buyout (as more farmers opted out of tobacco production) and to the variations in the world market for cotton.

Cash Receipts

Cash receipts from farm marketing and government payments, which represent gross returns from the actual sales of crops and livestock and livestock products during the calendar year,

were up for tobacco, soybeans, corn and wheat in 2009 over the previous year. Cash receipts for hogs, broilers, cattle and calves, other livestock and poultry, cotton and cottonseed were down. (Farm Income Exports: Prices Received and Prices Paid, N.C. Agricultural Statistics, www.ncagr.gov/stats/2010agstat) (Figures 13, 14, 15 and 16)

Figure 13. Cash Receipts From Farm Marketing and Government Payments

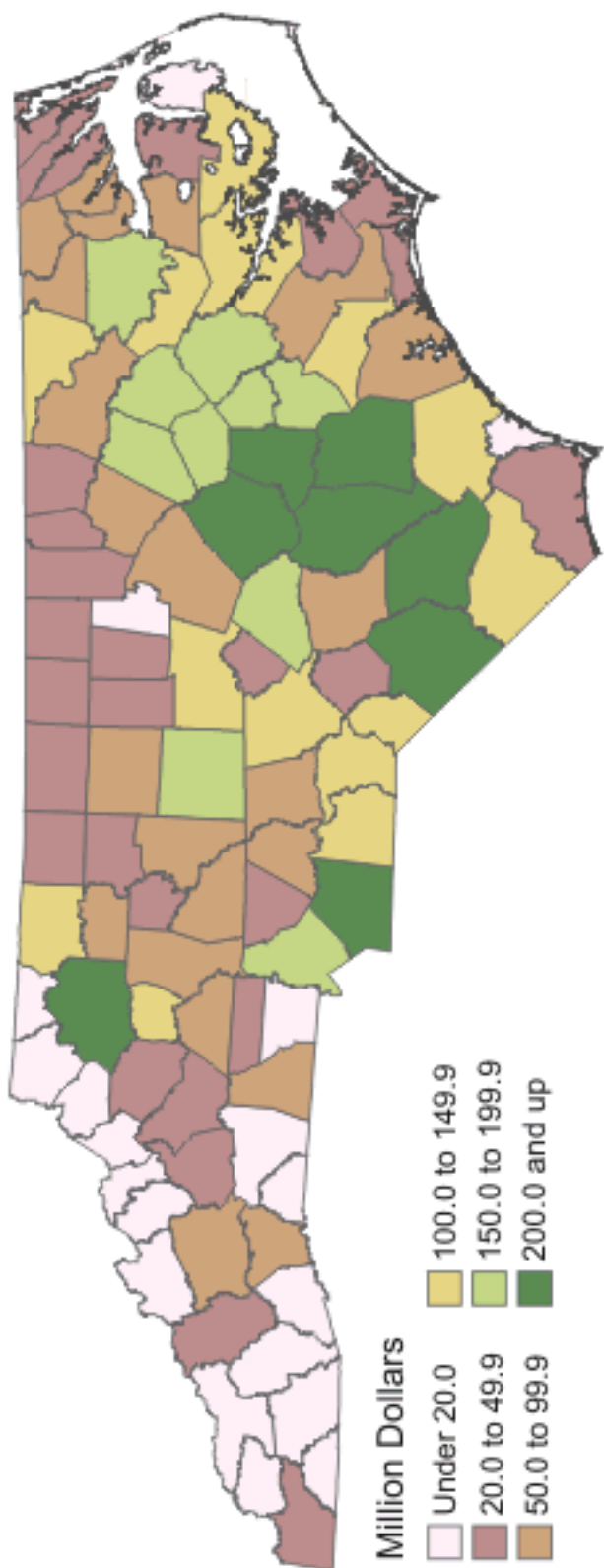
Product	2008	2009
Hogs	\$56,515,000	\$49,879,000
Broilers	\$11,426,000	\$9,596,000
Turkeys	*	*
Eggs	*	*
Dairy Products	*	*
Cattle and Calves	\$465,000	\$443,000
Other Livestock & Poultry	\$233,000	\$229,000
Tobacco	\$5,259,000	\$9,830,000
Cotton & Cottonseed	\$3,770,000	\$3,066,000
Soybeans	\$5,080,000	\$7,723,000
Corn	\$2,488,000	\$5,546,000
Peanuts	*	\$1,055,000
Wheat	\$3,335,000	\$5,184,000
Vegetables, Fruits, Nuts & Berries	\$381,000	\$420,000
Other Field Crops	\$171,000	\$201,000
Greenhouse & Nursery	*	*

*Cash receipts for inventory of less than 500,000 turkeys, inventory of less than 500 all cattle, 500 acres of peanuts, less than \$10,000 cash receipts or where individual data would be disclosed are not published.

Source: Farm Income Exports, Prices Received and Prices Paid, N.C. Department of Agriculture, 2010, www.ncagr.gov/stats/2010agstat

Figure 14.

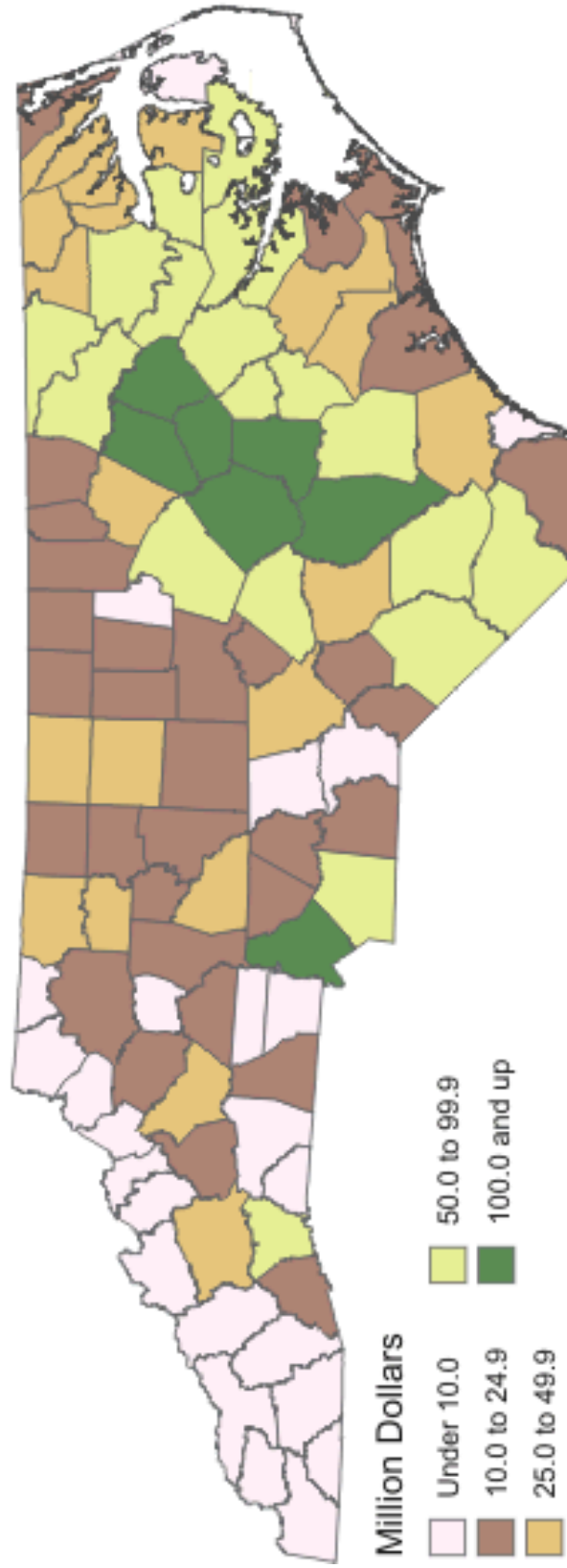
2009 County Cash Receipts from Farm Marketings
Includes: Crops, Livestock & Government Payments



Source: N.C. Department of Agriculture, Agricultural Statistics Division, www.ncagr.gov/stats/economic/cashreceipts/maps.htm

Figure 15.

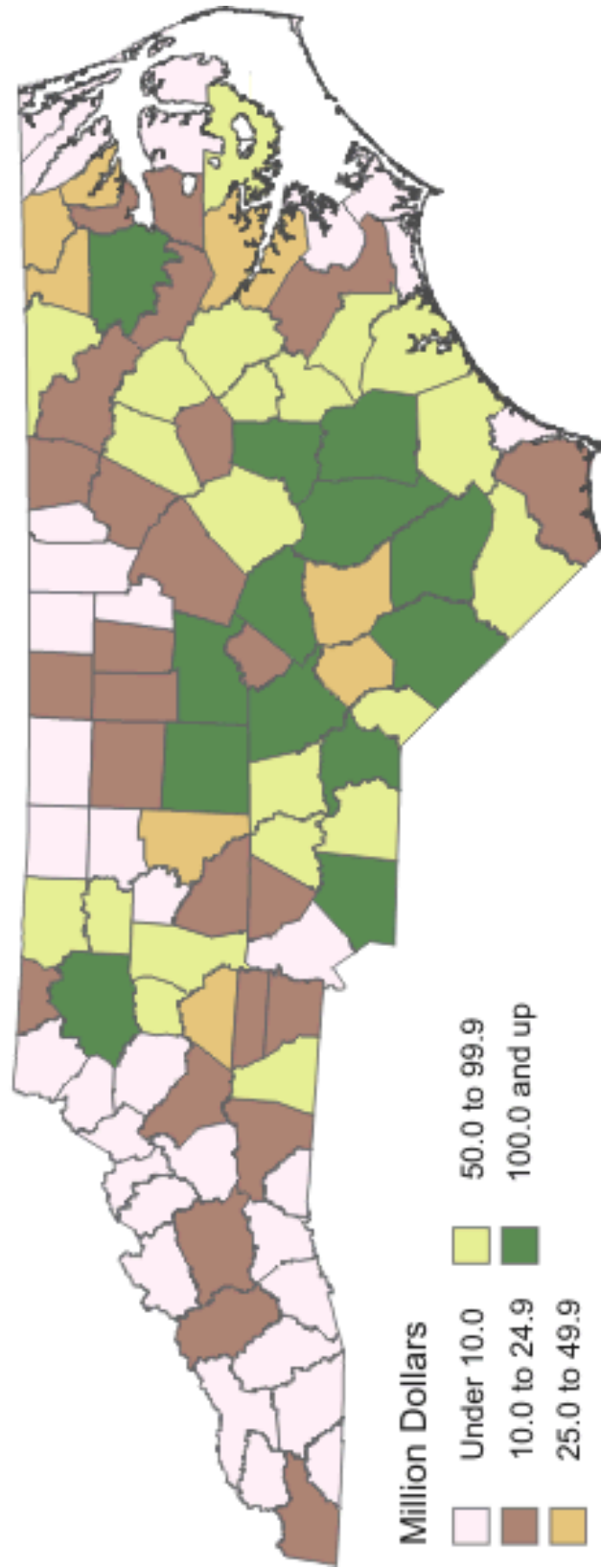
2009 Crops County Cash Receipts from Farm Marketings



Source: N.C. Department of Agriculture, Agricultural Statistics Division, www.ncagr.gov/stats/economic/cashreceipts/maps.htm

Figure 16.

2009 Livestock County Cash Receipts from Farm Marketings



Source: N.C. Department of Agriculture, Agricultural Statistics Division, www.ncagr.gov/stats/economic/cashreceipts/maps.htm

Major Products

Crops

The major crops in terms of total acreage in 2007 were soybeans at 22,200 acres, wheat at 14,600 acres, corn for grain at 14,500 acres and cotton at 6,000 acres. Jones County ranked 17th in the state in wheat production with 595,000 bushels in 2009 and 19th in the state in peanut production with 3,852,000 million pounds. (N.C. Department of Agriculture, 2009, www.ncagr.gov/stats/codata/jones.pdf) (Figure 17)

Figure 17. Jones County Agriculture, 2009

Crop	Acres Harvested	Yield	Production	State Rank
Corn for Grain: Bu	14,500	109	1,582,800	21
Cotton: Lbs. Production in 480 Lb. Bales	6,000	880	11,000	24
Peanuts: Lbs.	900	4,280	3,852,000	19
Soybeans: Bu.	22,200	37.0	824,600	28
Tobacco, Flue-Cured: Lbs.	2,450	2,280	5,586,000	26
Wheat: Bu.	14,600	41.0	595,000	17

Livestock Inventory	Number	State Rank
Cattle, All (Jan. 1, 2010)	1,700	74
Beef Cows (Jan. 1, 2010)	900	72
Hogs and Pigs (Dec. 1, 2009)	255,000	9

Source: N.C. Department of Agriculture, www.ncagr.gov/stats/codata/jones.pdf

Livestock and Poultry

From 2002 to 2007, Jones County saw a 33.5 percent decrease in the number of broilers and other meat type chickens sold (1,504,000 in 2002 and 1,480,000 in 2007). The number of farms selling turkeys increased from one to five during the same time period. In 2007, farmers sold 644,376 turkeys and had 237,502 in inventory. Numbers for 2002, 2008 and 2009 are not available due to suppression for proprietary reasons.

Jones County ranked ninth in the state in hogs and pigs in 2009 with 255,000 in inventory, up from an inventory of 201,120 in 2007 (USDA Census of Agriculture, 2007). According to the 2007 Census of Agriculture, 45 Jones County farms sold 853,821 hogs and pigs. In 2007, 27 farms sold 3,907 cattle and calves and had 38 farms had 3,538 in inventory. (Figure 18)

Figure 18. Jones County Livestock and Poultry Summary Highlights, 2007

Product	Farms	Number
Cattle and calves sold	27	3,907
Hogs and pigs sold	45	853,821
Broilers and other meat type chickens sold	3	1,480,000

Source: USDA Census of Agriculture, 2007

Water and Irrigation

The N.C. Department of Agriculture monitors water consumption for agricultural use throughout the state. The Central Coastal Plain Capacity Use Area Counties, which include Jones, Beaufort, Carteret, Craven, Duplin, Edgecombe, Greene, Lenoir, Martin, Onslow, Pamlico, Pitt, Washington, Wayne and Wilson have a daily withdrawal capacity for ground and surface water of 257,267,508 gallons. Average daily ground water consumption for the region peaks in June at 25,729,416 gallons. Average daily surface water consumption peaks in July at 44,564,802 gallons. (Figure 19) (North Carolina Agricultural Water Use, 2009, N.C. Department of Agriculture and Consumer Services, www.ncagr.com/stats)

Jones County communities draw most of their water for domestic use from the Castle Hayne, Pee Dee and Black Creek aquifers. Since the 1990s, the state has restricted water extraction from the Black Creek Aquifer and required county water systems to reduce their annual consumption. By 2013, Jones County must reduce its consumption by 25 percent and by another 25 percent by 2018. As a result, in 2001 the county installed a well in the Pee Dee Aquifer as an

alternate water source. The county is currently constructing a second well in the Pee Dee Aquifer.

In 2007, Jones County farmers irrigated 1,950 acres, a 40 percent decrease in irrigation from 2002. Most (89 percent) of the irrigation was for cropland. (USDA Census of Agriculture, 2002, 2007) In 2009, 10 operations, nine of which were livestock operations, used an average of 81,998 gallons of ground water a day for irrigation. The average gallons of surface water a day are not available for the county due to data suppression because one operation is greater than 60 percent of the total or there are fewer than three operations using surface water. (N.C. Agricultural Water Use, 2009)

According to the Jones County Water Department, most farmers irrigate from private wells that are shallower than those used by the public water system. As extraction restrictions cause the county to shift to shallower aquifers to meet public demand, farmers' access to water could be affected.

Figure 19. 2009 Central Coastal Plain³ Total Water Use by Month¹

Month	# Operations ²	Total Avg. Daily-Ground	Total Avg. Daily- Surface	Total Max Daily- Ground	Total Max Daily- Surface
	(count)	(gallons	(gallons	(gallons	(gallons
January	232	4,807,321	944,837	5,082,689	945,380
February	244	5,168,972	945,483	5,578,426	947,104
March	253	8,265,653	9,017,263	9,385,932	9,059,186
April	273	16,236,663	23,388,411	18,081,967	27,471,197
May	280	21,158,051	21,706,250	23,543,271	31,837,533
June	320	25,729,416	42,339,730	29,764,288	52,240,010
July	310	22,425,738	44,564,802	43,388,830	53,309,189
August	289	19,680,388	32,368,494	31,203,261	36,966,759
September	264	14,120,911	16,643,993	16,661,637	21,004,483
October	255	11,244,429	3,063,188	12,602,541	3,167,848
November	236	6,159,675	2,225,120	6,792,483	2,225,663
December	232	4,720,998	1,955,380	5,182,054	1,955,380
Annual Average		13,309,851	16,596,913		

¹Users of 10,000 gallons or more per day. Does not include farms that have reported their withdrawals directly to DENR by July 1, 2009. Operations²: 321 total unique operations, 228 livestock, 91 irrigation, 19 aquaculture. The type and monthly number of operations will not add to the total. Some operations reported multiple types and others reported both surface and ground water. ³Central Coastal Plain Capacity Use Area Counties include Beaufort, Carteret, Craven, Duplin, Edgecombe, Greene, Jones, Lenoir, Martin, Onslow, Pamlico, Pitt, Washington, Wayne and Wilson.

Source: North Carolina Agricultural Water Use, 2009, N.C. Department of Agriculture and Consumer Services.

Forestry

According to the most recent USDA forest inventory and analysis in 2007, North Carolina now has 18 million acres of timberland, an increase of 362,000 acres since 2002 that reverses a trend of decreasing timberland in the state. (Some within the forestry community dispute the increase in acreage and attribute it to a change in sampling methods. Others believe that the increase is legitimate and attribute the increase, at least in part, to the conversion of agricultural land to forest.)

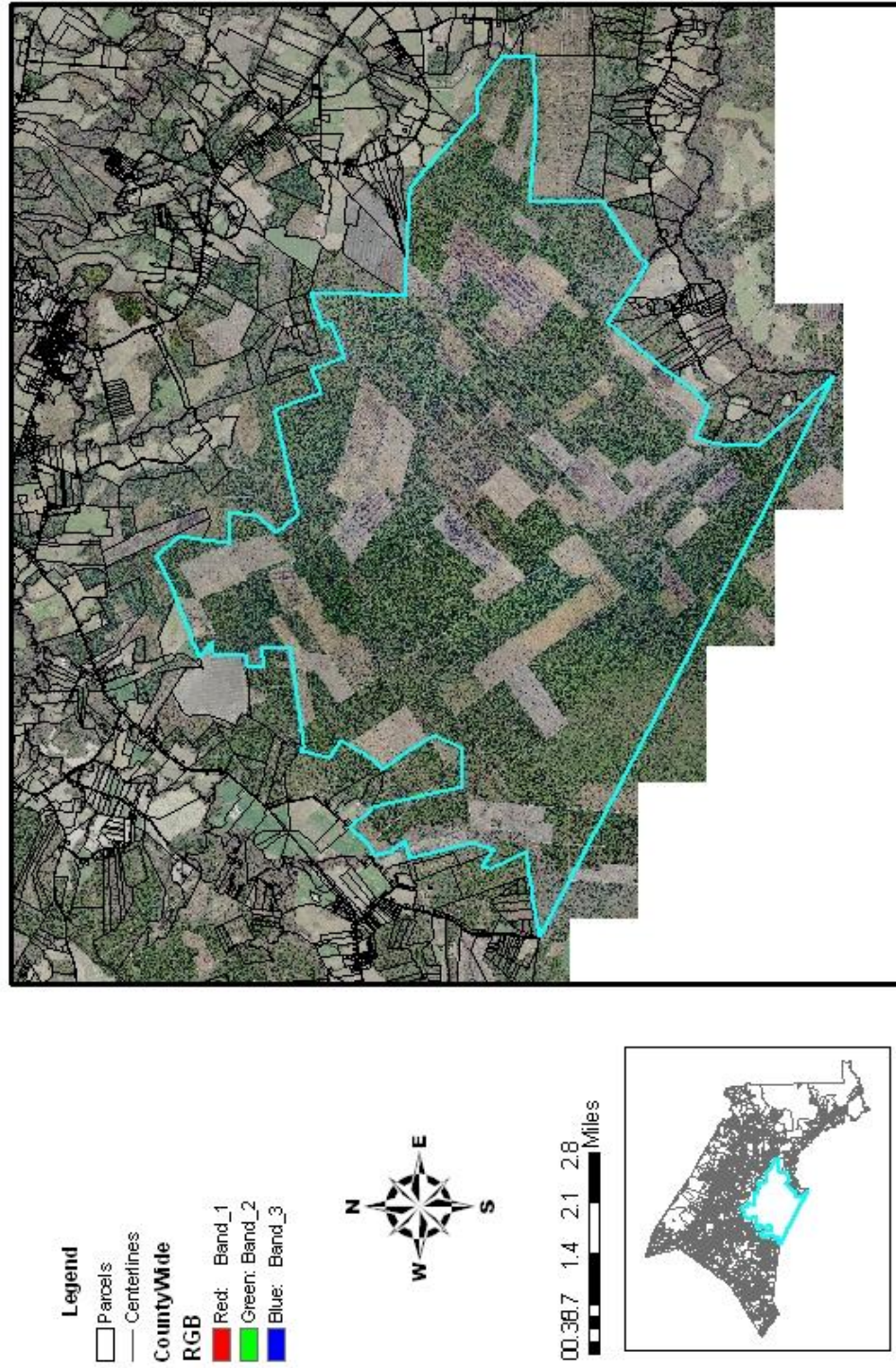
Jones County, like the state as a whole, has seen an increase in forested acreage in recent years. In 2002, Jones County had 219,100 acres in trees, 209,900 acres of which was classified as timberland. (www.dfr.state.nc.us/contacts/jones.htm) In 2009, the total acreage in timber increased to 224,559 acres or 77 percent of the land in the county. (2009 Income of North Carolina Timber Harvested and Delivered to Mills, James Jeuck, Robert Bardon, NCSU Cooperative Extension) (The USDA defines timberland as “forest land capable of producing 20 cubic feet of industrial wood per acre per year and not withdrawn from timber utilization.”) In 2002, more than half (52 percent) of the timberland in Jones County belonged to non-industrial private landowners. The forest industry owned 23 percent, while the federal government owned 13.5 percent, and the state owned 11.3 percent. (USDA, Forest Statistics for North Carolina, 2002, Mark J. Brown)

Hofmann Forest

Of the Hofmann Forest’s 79,000 acres, about 40 percent (31,191 acres) is in Jones County. Although the Hofmann Forest is owned by an endowment fund housed at N.C. State University and operates as a 501(c)(3), it has a significant impact on the local economy. The estimated economic impact of the Hofmann Forest on Jones and Onslow counties is a combined \$15 million per year. In fiscal 2009-2010, the Jones County portion of the forest generated approximately 160,000 tons and \$1.9 million in sales. In addition, the forest employs 150 people a year, including seasonal workers, site preparation contractors, loggers and tree planters. It also supports one associate ranger and one tractor operator through the N.C. Forest Service. Many of these workers live in Jones County. The Hofmann Forest also provides more than 300 Jones County hunters a great place to hunt deer, bear, turkey, dove, bobcats, rabbit and quail. (Hofmann Forest, March 2011) (Figure 20)

Figure 20.

Jones County Hofmann Forest



Croatan National Forest

Approximately 40,000 acres of the Croatan National Forests' 159,885 acres are in Jones County. This forest provides various outdoor recreational activities including camping, hiking, fishing and hunting deer, bear, turkey, dove, bobcats, rabbit and quail. In 2010, the Croatan paid Jones County a total of \$154,388 of which \$95,881 was payment in lieu of taxes per acre and \$58,507 was for USDA Forest Service payments to states under new Public Law 110-343 Amended Secure Rural Schools and Community Self Determination Act. Information on timber harvested in the Jones County portion of the Croatan is not available. (Croatan National Forest, www.fs.usda.gov)

Forest Management

According to the survey conducted by the U.S. Department of Agriculture in 2006, only 28 percent of the forestland in North Carolina is managed under a written forest management plan (USDA, National Woodland Owner Survey, 2006). No data are available on the county level, but local forestry professionals think that it is likely about the same percentage. Although research for this report has not found hard data to support the claim, forestry professionals believe that having a written forest management plan increases the likelihood that land will stay forested longer.

In Fiscal 2009-2010, the N.C. Forest Service Jones County office wrote 200 forest management plans, most in response to an increased demand for enrollment in the Present Use Value Tax Program. In the first quarter of 2010-2011, the foresters wrote 19 plans, a more typical number. At present there is no backlog in requests for management plans through the county DFR office. The county rangers estimate that about 15 percent to 30 percent of the landowners with Present Use Value plans have implemented the plans. Land in the program is audited every eight years.

In 2009-2010, the DFR planted 478 acres of loblolly pine in Jones County. As of March 2011, they have planted 475 acres in fiscal 2010-2011. They anticipate planting an additional 70 acres by year end.

Wildfire is a major concern in Jones County because of current drought conditions and the large tracts of forestland in the county.

Forest Products Industry

North Carolina's forest products industry, the state's largest manufacturing industry in terms of employment and wages, has been seriously affected by the economic decline in recent years. Statewide, employment in this sector has declined by nearly 20,400 jobs since 2007, and the value of shipments has decreased by \$1.1 billion. Jones County has lost some forest products industry jobs due to low demand and the poor economy. (N.C. State University, College of Natural Resources, 2010)

Timber Markets and Prices

There are a number of companies that buy timber in Jones County, although none are based in the county. Of the dozen logging companies that operate in Jones County, only one is based there. None of the 22 wood dealers that buy timber in Jones County is located in the county. In addition, the plywood mills, pulp mills, sawmills, and pulp and paper mills that buy Jones County timber are all located outside of the county. And of the 51 consulting foresters who provide forest management services in Jones County, none have businesses based in Jones County. (N.C. Forest Service) Craven County Wood Energy, a power generating facility fueled by biomass, utilizes waste wood, bark, chips and other byproducts of logging operations. Although it's located outside of Jones County, it does purchase some of its biomass from the county.

In 2009, the total stumpage price (the price paid to the landowners for standing timber) for Jones County was nearly \$7.77 million, and the delivered value (the price paid to the timber buyer upon delivery of timber to the mill) was \$14.99 million, earning Jones County a statewide ranking of 17th in timber production. These values are down from 2008 when stumpage value was \$8.89 million and delivered value was \$15.87 million. (Jeuck and Bardon, 2008 and 2009)

For the Eastern North Carolina region, the average pine saw timber stumpage price in 2010 was \$247 per thousand board feet, up from \$220 in 2009 but down from \$262 in 2008 and down from a high of \$345 in 2000. The average pine pulpwood stumpage price for the region reached a 35-year high of \$23.90 per cord in 2010, up from \$18.94 the previous year. The mixed hardwood saw timber stumpage average price for 2010 was \$190 per thousand board feet, up from the 2009 price of \$157 but down from a 35-year high of \$221 in 2006. The hardwood pulpwood stumpage price reached a 35-year high of \$16.30 per cord in 2010, up from \$14.43 in 2009. (Jeuck and Bardon, 2008 and 2009)

While 2010 prices are up from the previous year in all categories for the Eastern North Carolina region, Jones County landowners report that local prices are down. Official data is not available to confirm their report, but forestry extension professionals acknowledge that it's possible for Jones County prices to lag because of distance to mills or lack of competition.

Landowners interviewed for this report indicated that access to timber markets are a major factor in deciding whether to replant trees after a harvest. The Jones County Division of Forest Resources staff agrees. They estimate that in the current economic climate, 35 to 40 percent of landowners have reforested their tracts after harvest. Prior to the current economic downturn, they estimate that 50 percent to 60 percent of harvested land was reforested. Landowners often harvest timber to help make ends meet, but when the economy is bad, they don't have the money to replant. Government cost-share programs become essential to continued reforestation. Landowners and forestry professionals agree that additional local markets would encourage more replanting.

Agritourism

Agritourism – which includes farms that are open to the public for picking fruits or vegetables, educational tours or programs, entertainment, sampling and/or purchasing homegrown or handmade products – is becoming increasingly popular as North Carolinians become more interested in locally grown produce and knowing the source of their food. Statewide, it has grown from a \$1.87 million industry in 2002 to a \$12.7 million industry in 2007 (USDA Census of Agriculture, 2002, 2007) Jones County, however, hasn't fully tapped into the potential of this sector. In 2007, only three businesses reported that they provided agritourism or recreational services, down from four agritourism businesses in 2002 that generated \$13,000. Income for 2007 was suppressed for proprietary reasons. The main agritourism businesses in operation in 2011 are a farmers market, heritage festival, produce stands and pick-your-own farms.

Jones County Farmers Market

In 2010, Jones County received a grant to launch a farmers market on Fridays from 1 to 6 p.m. in downtown Trenton at 130 West Jones Street. The market operated from May until September with moderate success. A total of eight local farmers participated, with an average of four farmers selling their products each week. Farmers paid a fee of \$5 per week for tent space, a table and chairs. In 2011 the market opened on April 15, but funding expired in May. The Jones County Health Department, which runs the program, received a grant extension allowing the market to continue operating until September 2011.

Jones County Heritage Festival

The Jones County Heritage Festival held in September promotes the county's rich agricultural heritage with opportunities to loop tobacco, milk a cow, shuck corn and sample homemade ice cream. This annual event is held on third Saturday in September.

E-Farm, LLC

E-Farm sells eggs and vegetables at regional farmers markets.

Weatherly Farms

Weatherly Farms sells fruit at the farmers market in New Bern.

Parker Farms

Parker Farms, located near Pollocksville, offers corn, tomatoes, strawberries, peaches, melons, sweet potatoes and other seasonal vegetables as pick-your-own and at a produce stand in New Bern. November and December they offer sweet potatoes and winter greens to consumers on Fridays and Saturdays.

Garden Fresh Produce

Garden Fresh Produce is a roadside stand on Highway 41 West outside of Trenton that operates from May to October. Their main product is shelled beans.

Hammond Farms

Hammond Farms, located on Highway 41 in Comfort, operates a roadside stand that offers corn, tomatoes, onions and other vegetables.

Honey Creek Apiaries

Honey Creek Apiaries, located in Comfort on Highway 41, offers natural honey and bee removal services.

Scott Farm Organics

Scott Farm Organics is the first USDA Certified Organic Farm in the area. Its products include Swiss chard, romaine lettuce, sugar snap peas, summer squash, winter squash, cucumber, melons, sweet corn, green beans, butterbeans, sweet potatoes and more. They sell their vegetables at the New Bern Farmers Market and at their own roadside stand on Highway 17 South near the Craven/Jones County line.

Trent River Campground

Trent River Campground, located on Highway 41 west of Trenton, offers a primitive camping experience for visitors.

Biofuels/Bioenergy

The Biofuels Center of North Carolina, which is funded by the N.C. Legislature, has set a goal of replacing 10 percent of the state's liquid fuel consumption with fuel produced in state with locally-grown biomass by the year 2017. The most likely feedstock is trees because there is currently an abundance of woody biomass in the state. Energy grasses, such as miscanthus and switchgrass, also show potential and can be grown between rows of trees in a plantation, providing income for landowners in the years prior to harvesting timber.

According to a 2009 report by the N.C. Cooperative Extension, Extension Forestry, North Carolina's current annual harvesting rates generate 8.3 million tons of logging residue that could be used as green biomass feedstock. In Jones County, 2005 data indicates that there are between 50,000 to 150,000 tons of green woody biomass available. (Figure 21) Another source of woody biomass is thinning overstocked stands. Throughout the state, an average of 48 percent of the forestland needs to be thinned. In Jones County, less than 40 percent of timberland is overstocked or fully stocked. (Figure 22) (Jeuck and Duncan, 2009)

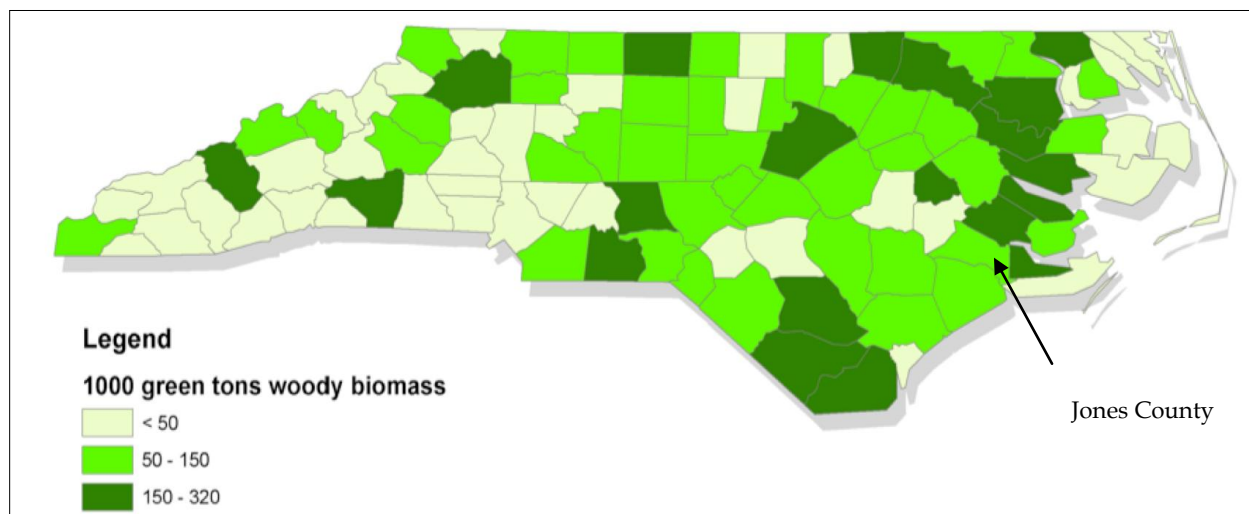
Despite the ready availability of biomass feedstock in North Carolina's forests, the cost of harvesting, processing and transporting the low-value woody biomass remains high in comparison to what the markets will pay. Slim profit margins make it difficult for loggers to pay landowners much, if anything, for the low-value logging residue. Until more markets are available nearby and prices increase, Jones County landowners are unlikely to see much benefit from the sale of woody biomass.

According to the N.C. State University College of Natural Resources, processing facilities will most likely be located where the wood resource is most abundant or near a pulp/paper mill, which uses similar raw material. The location of the processing facilities will impact the value of the raw material.

In addition to replacing liquid fuel consumption, N.C. law requires electric utilities to use renewable resources to meet 3 percent of their retail electricity demand by 2012 and 12.5 percent by 2021. Biomass resources that may play a role in meeting these requirements include agricultural waste, animal waste, wood waste, spent pulping liquors and energy crops. (N.C. Utilities Commission, www.ncuc.commerce.state.nc.us)

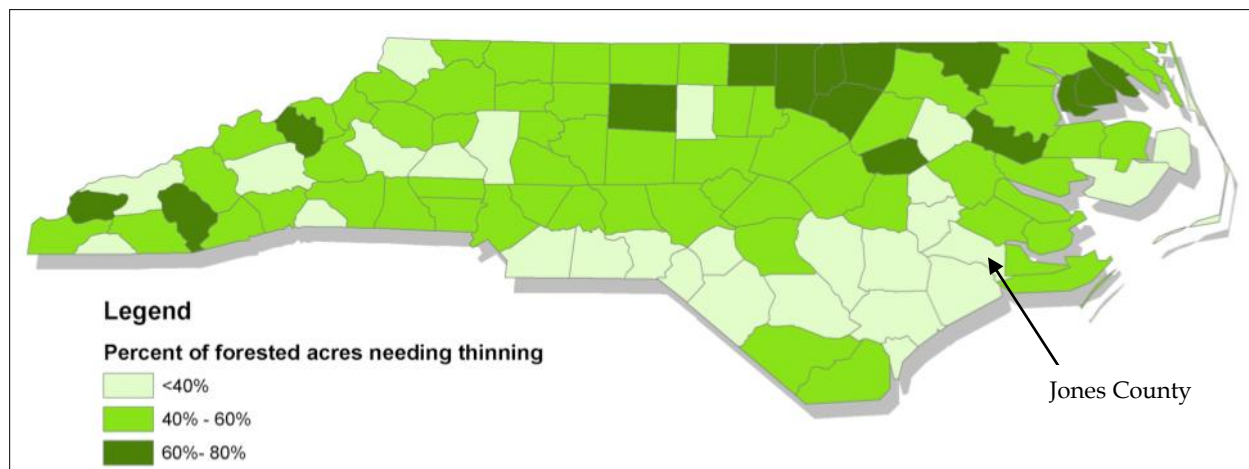
According to N.C. Cooperative Extension, Jones County Center, two farmers planted test plots of canola to determine how well it grows in the region. Canola is a possible biofuel feedstock for the nearby military bases, which are under a federal mandate to find alternative fuels.

Figure 21. Logging Residues Available for Woody Biomass Market by County



Estimates based on 2005 data and 70 percent recovery rate.
Source: U.S. Forest Service, Timber Production Output, 2008

Figure 22. Percent Forest Area That is Overstocked or Fully Stocked



Based on 2006 inventory data.
Source: U.S. Forest Service, Forest Inventory and Analysis, 2009

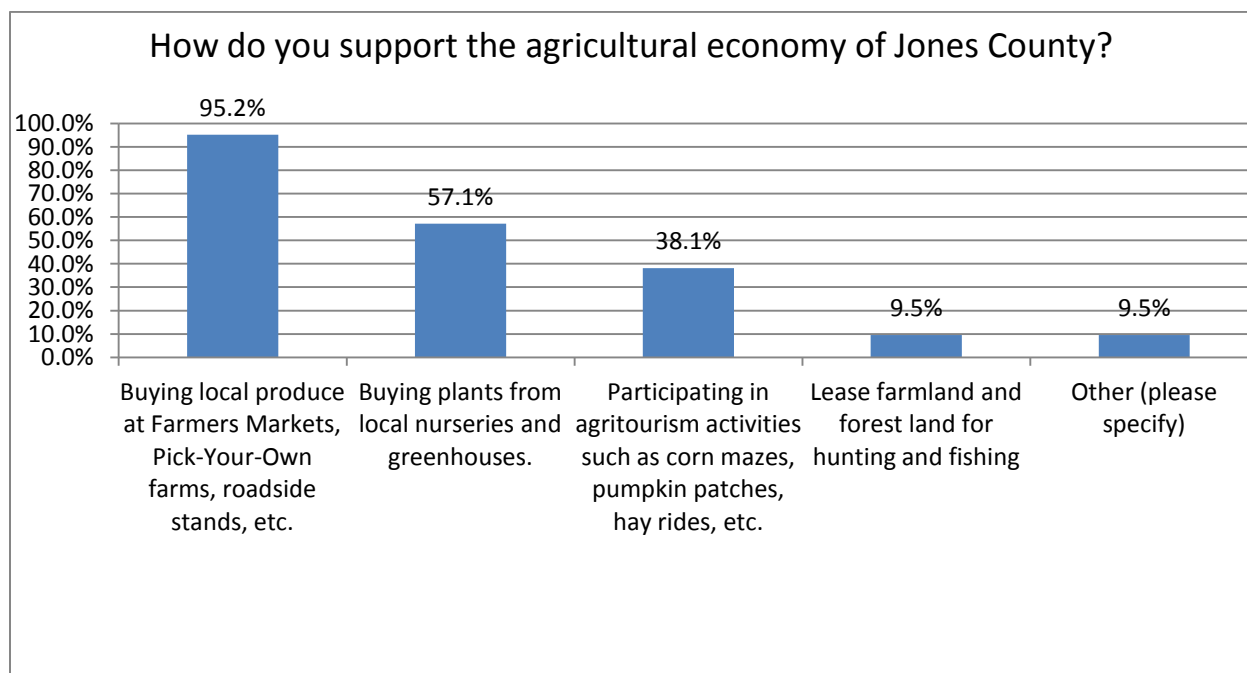
County Surveys

(All of the survey information below is from surveys of Jones County producers/landowners, agricultural businesses and non-farm residents. The surveys, which were conducted in the first quarter of 2011, provide a snapshot of agriculture in Jones County but are not necessarily representative of all county residents.)

Non-Farmer Survey

Agriculture enjoys widespread and strong support in the Jones County community among non-farmers. Almost all (95 percent) reported that they buy local produce at farmers markets, roadside stands or pick-your-own farms. About two-thirds buy plants from local nurseries or greenhouses. (Figure 23)

Figure 23. Non-Producer Survey

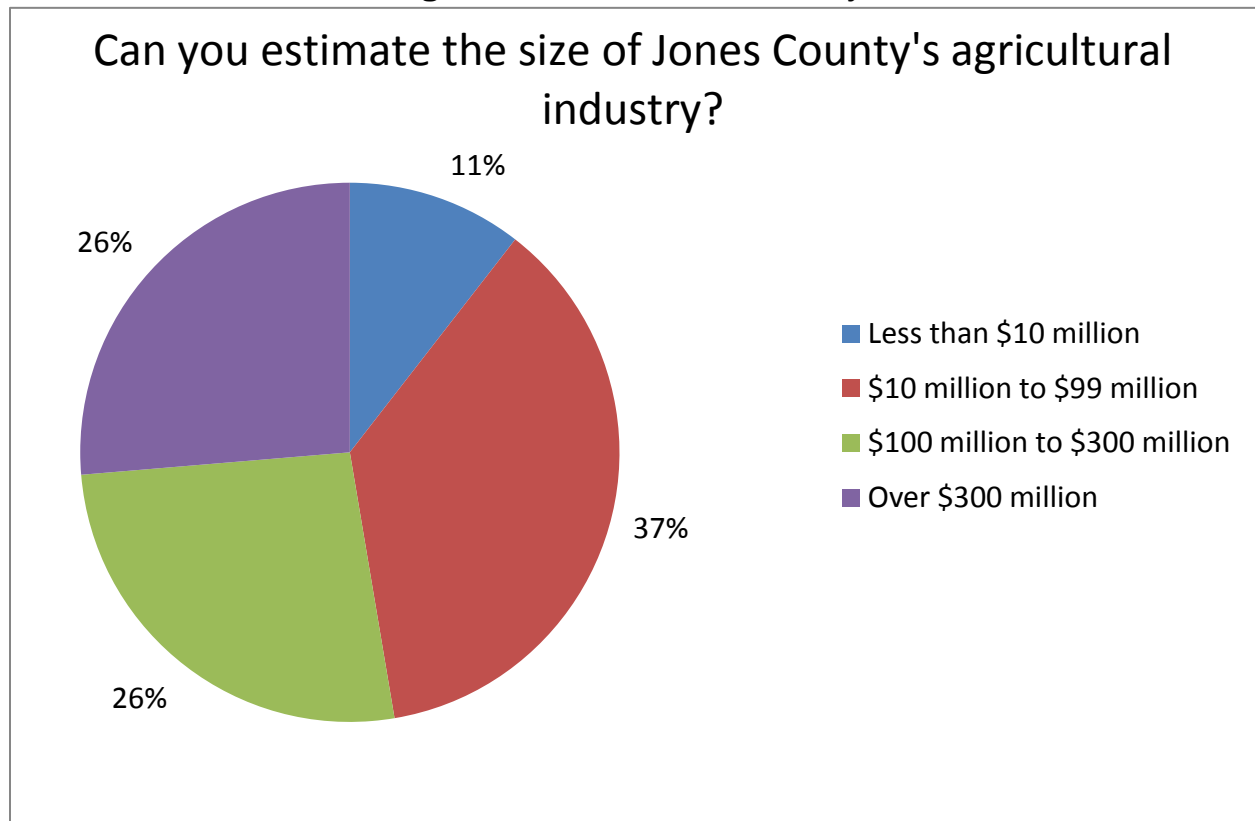


All of the non-farmers surveyed think that farms and forests enhance the scenic beauty of Jones County and that farming is important to the environment. In addition, 91 percent of the non-farmer survey respondents would support farm and forest preservation efforts in Jones County, and 85 percent support the use of local government funds for that effort.

Three-fourths of the non-farmer survey participants live within a quarter mile of a farm, and almost all (81 percent) think that farmers are good neighbors. Of the 60 percent who say they've had a problem with a farm neighbor at some time, the most common complaints were odors (35 percent), boundary/trespass issue (20 percent), slow moving traffic (20 percent), manure application (15 percent) and pesticide use (15 percent).

Only 26 percent accurately estimated the economic impact of agriculture and agribusiness to the local economy. (Figure 24) In 2010, the industry contributed nearly \$116 million or 70 percent of the county's value-added income.

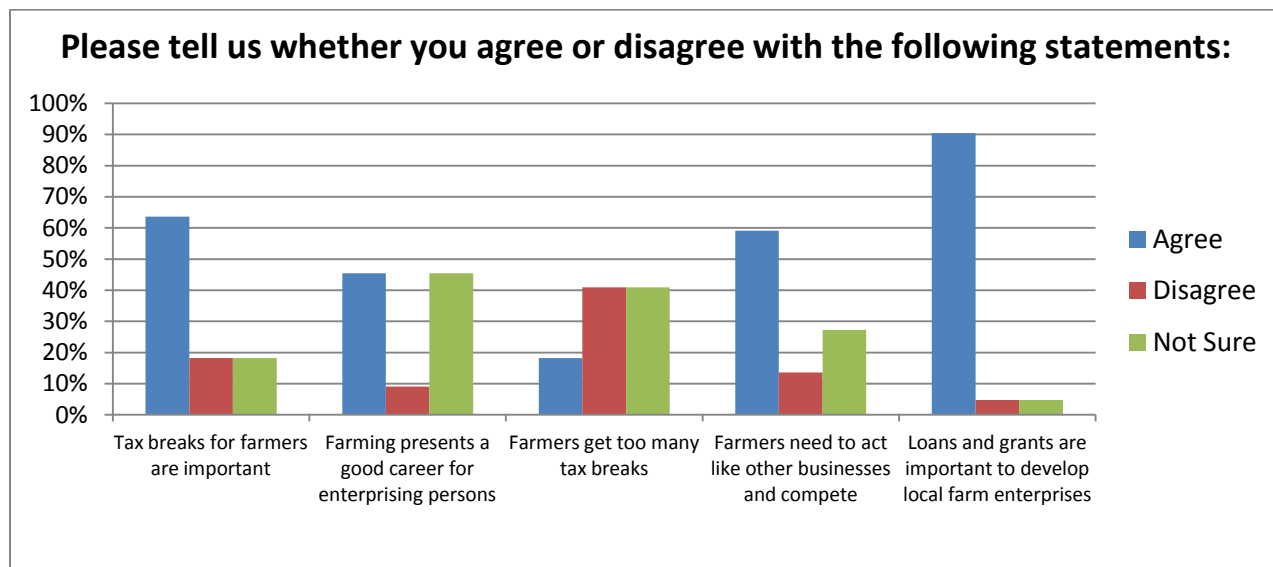
Figure 24. Non-Producer Survey



When it comes to taxes, government loans and free enterprise, public opinion is mixed. Two-thirds think that tax breaks are important to farmers, but more than half (58 percent) are either uncertain whether farmers get too many tax breaks or agree that they get too many tax breaks. Most non-farmers (86 percent) think that loans and government support are important to developing local farm enterprises, but at the same time more than half (59 percent) think that farmers need to act like other businesses and compete. Almost all think that agribusinesses,

farms and forests should be encouraged to expand their operations in Jones County. But fewer than half think that farming is a good career choice for enterprising individuals. (Figure 25)

Figure 25. Non-Producer Survey

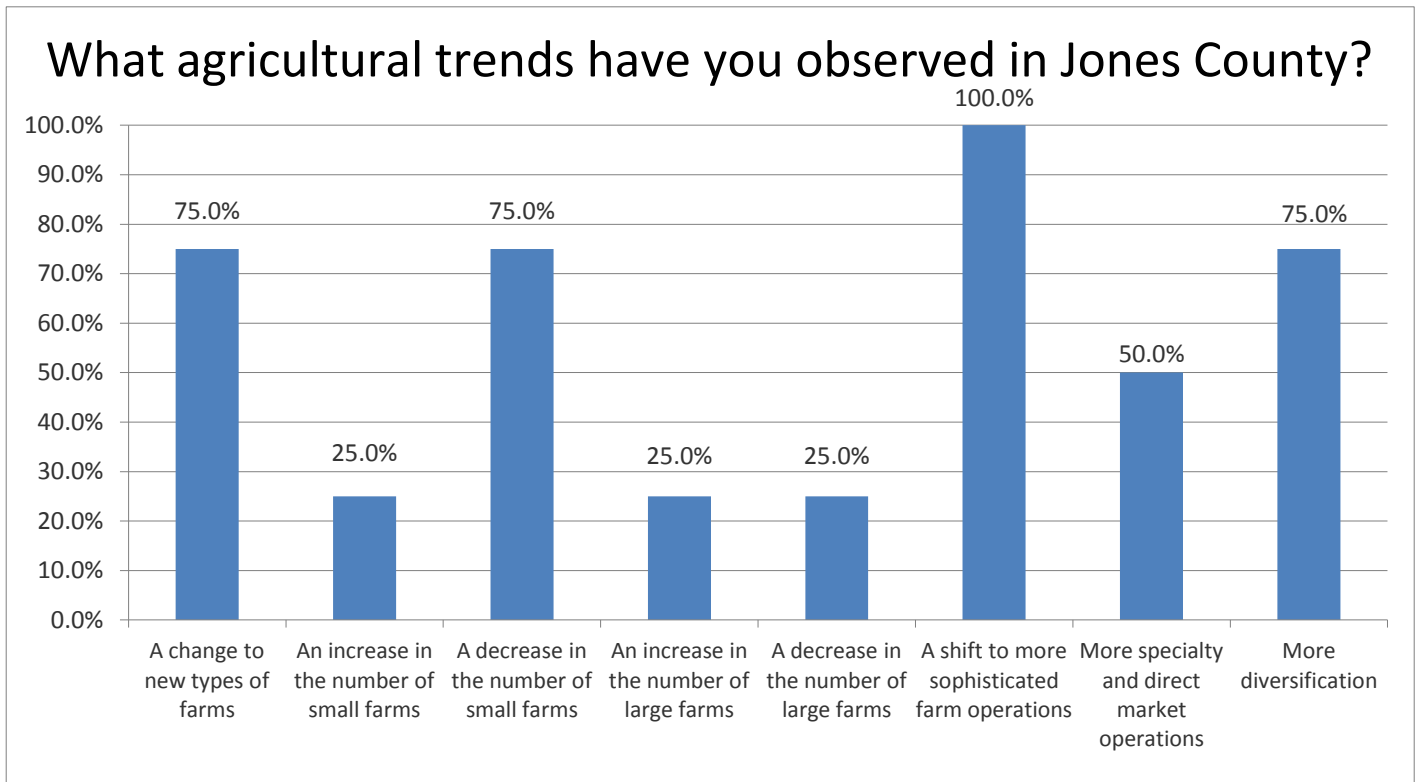


Agribusiness Survey

In the last five years, most (75 percent) of the agribusinesses have expanded and added service area to maintain or expand their market share. All the businesses surveyed have increased their agricultural inventories and sales in the last five years and anticipate adding new products and services for farm and forestry operations in the next five years. Only half expect to add new products and services for non-farmers. Three-fourths expect to increase the size of their operations and add employees in the next five years.

Of the Jones County agribusinesses surveyed, all report that the major trend they see in local agriculture is more sophistication in farming operations. Three-fourths think that local farms are more diversified, and half believe that there are more specialty and direct marketing operations today than in the past. (Figure 26) All of the agribusinesses said that they will modify their business plans to adapt to the trends they have observed.

Figure 26. Agribusiness Survey



While all of the agribusinesses surveyed are aware of the N.C. conservation easement tax credit, only half know about Jones County's Voluntary Agricultural District program and the present use value tax program.

Agribusinesses are in general agreement on the future of agriculture in Jones County. All agribusinesses surveyed think:

- agriculture is a viable career path,
- it's important to educate the community about the importance of agriculture to the local economy and
- that there needs to be agriculture education in the Jones County schools.

Three-fourths think that there is a need to educate the community about the importance of buying local produce. All of the agribusinesses see agritourism as a way to expand and diversify agricultural operations and think that for businesses to succeed, owners need to be educated on new technologies in agriculture and forestry.

Three-fourths support local government funding for farm and forest preservation, say that transition/estate planning is important for the future of agriculture. (Figure 27) Only half think that the county economic development commission adequately supports agriculture, and most (75 percent) are skeptical of biofuel's potential as an economic engine for the county. (Figure 28)

Figure 27. Agribusiness Survey

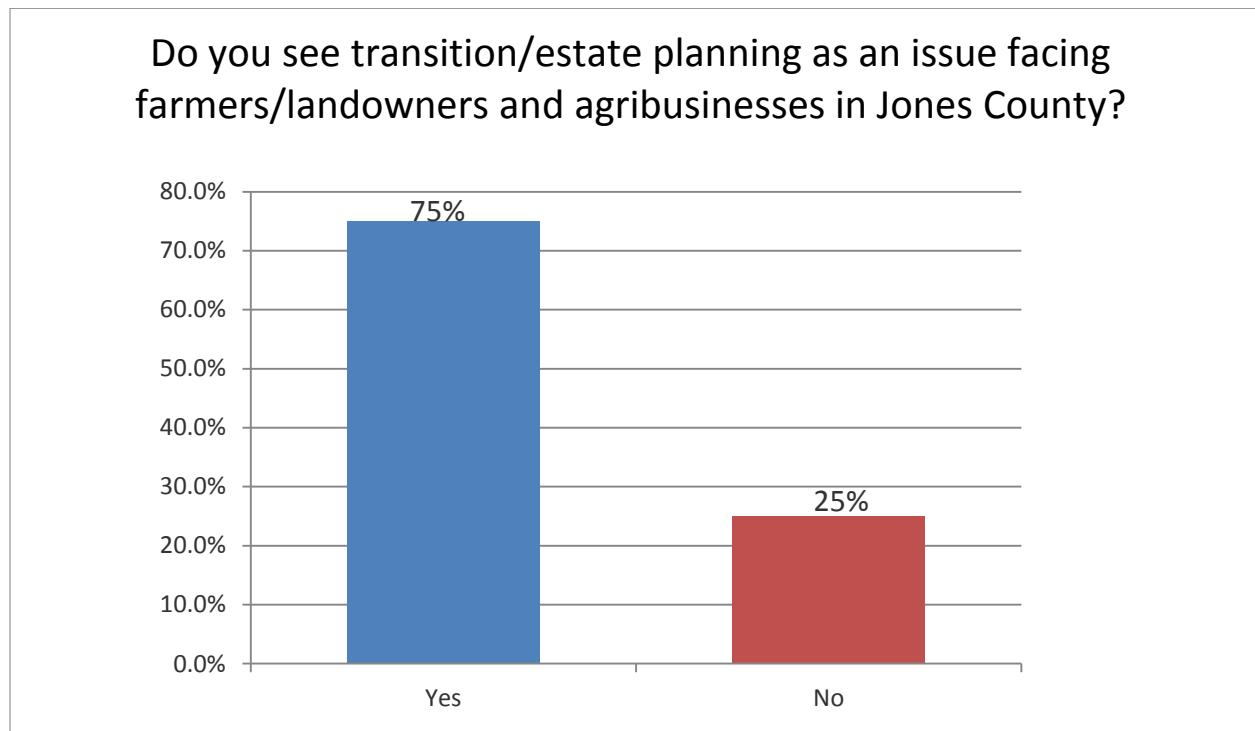
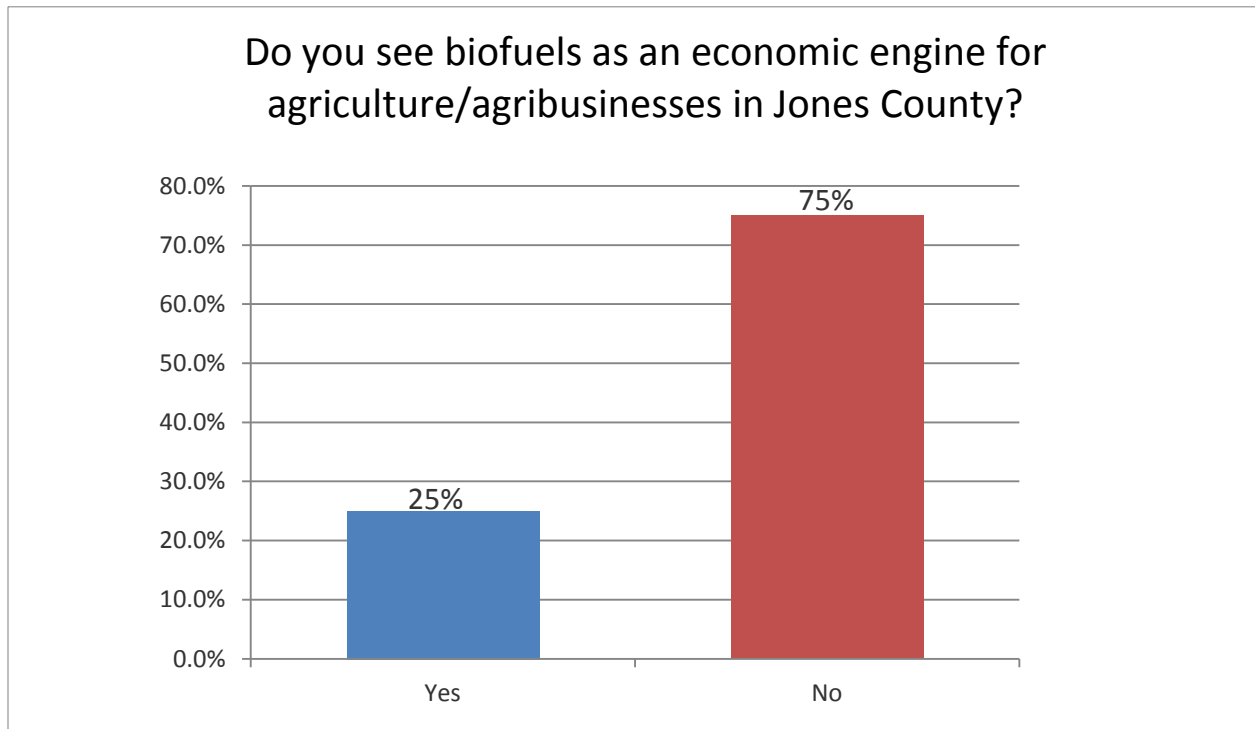


Figure 28. Agribusiness Survey



Producer Survey

Although the average age of producers surveyed was 54 years, more than half plan to work another 20 years or more. (Figure 29) When they do retire, almost all (87 percent) expect to transfer their farm and forest land to family members for continued agricultural use. (Figure 30) While two-thirds say that they have shared their thoughts about farm transition with their family, 81 percent have no farm transition or estate plan. Nearly three-fourths said that they would be interested in receiving training in transfer and estate planning.

Figure 29. Producer Survey

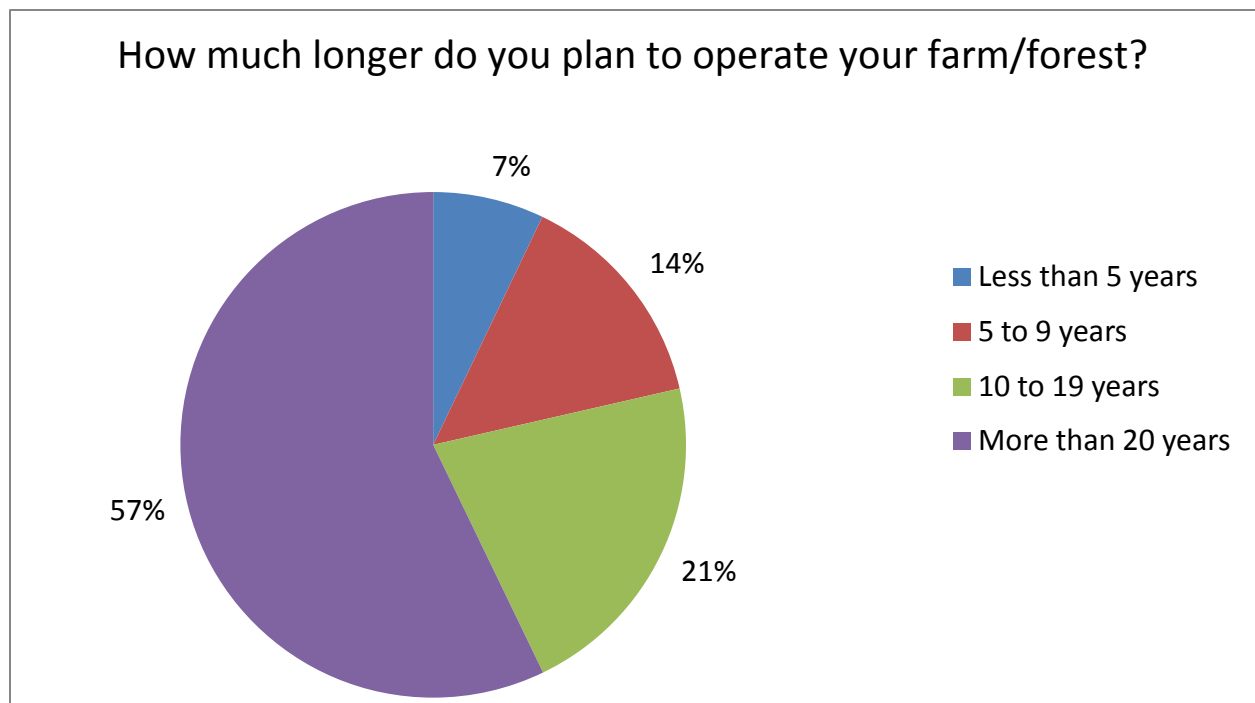
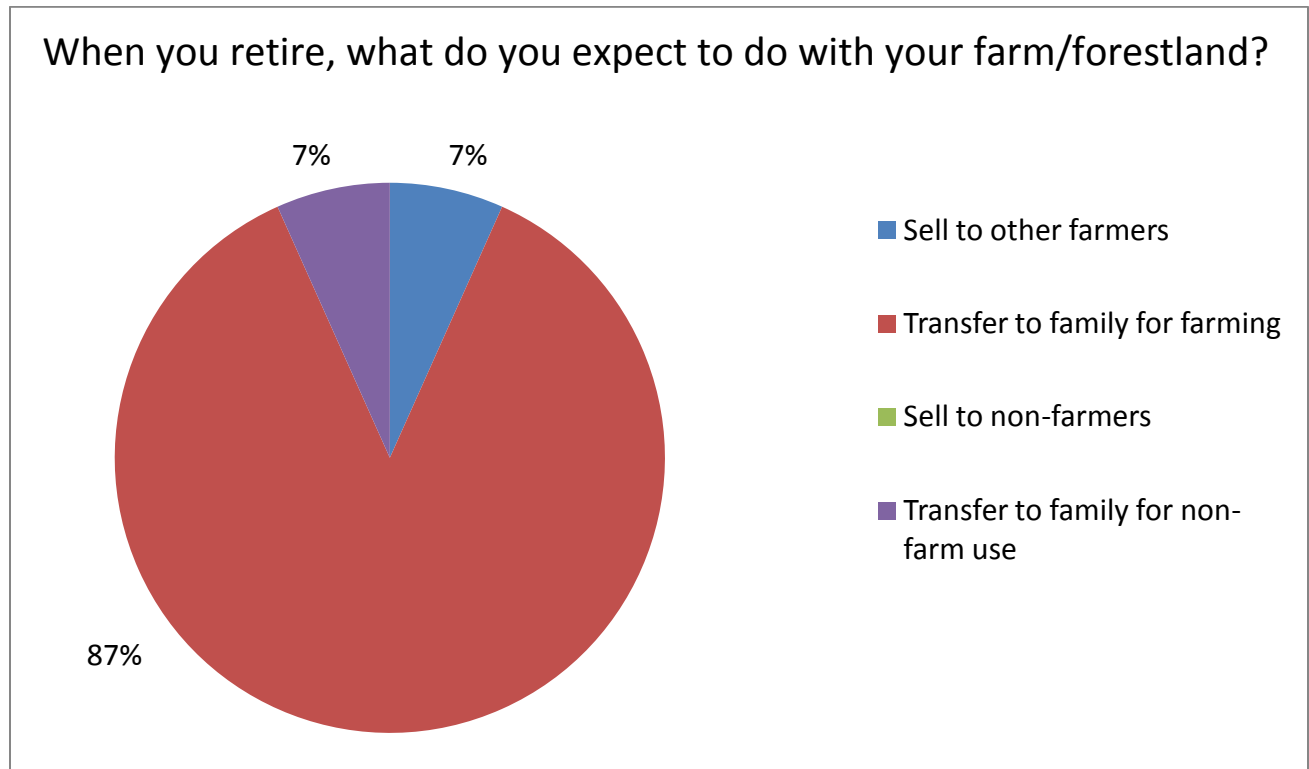
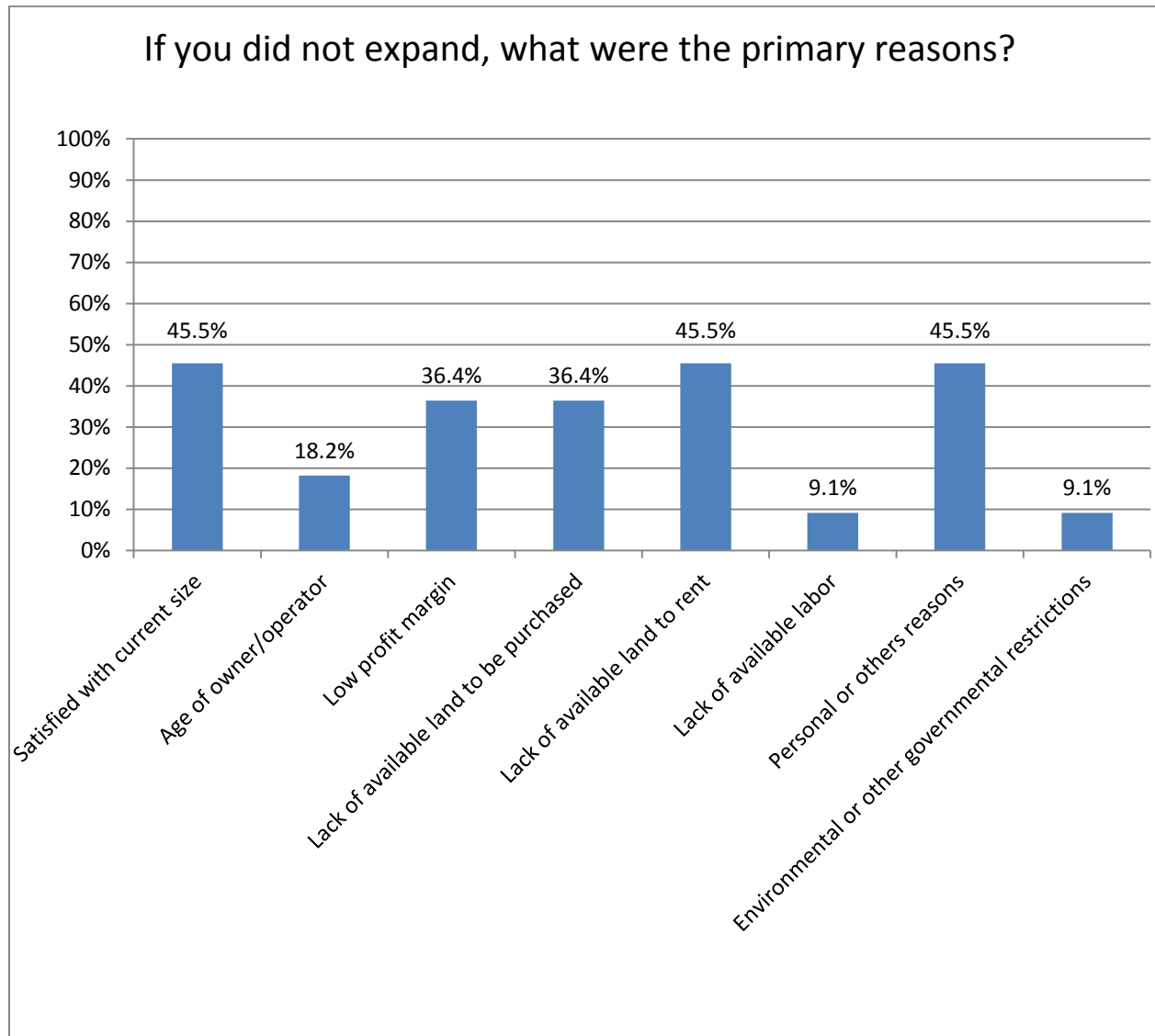


Figure 30. Producer Survey



In the past five years, nearly half of the producers have expanded their operations. Those who didn't expand said that the main reasons were that they were satisfied with the current size of their business (45 percent), low profit margins hindered their expansion (35 percent), or there is no land available to rent (45 percent) or to purchase (35 percent). (Figure 31) In fact, 71 percent said that they do not have enough land to expand or diversify their operations.

Figure 31. Producer Survey



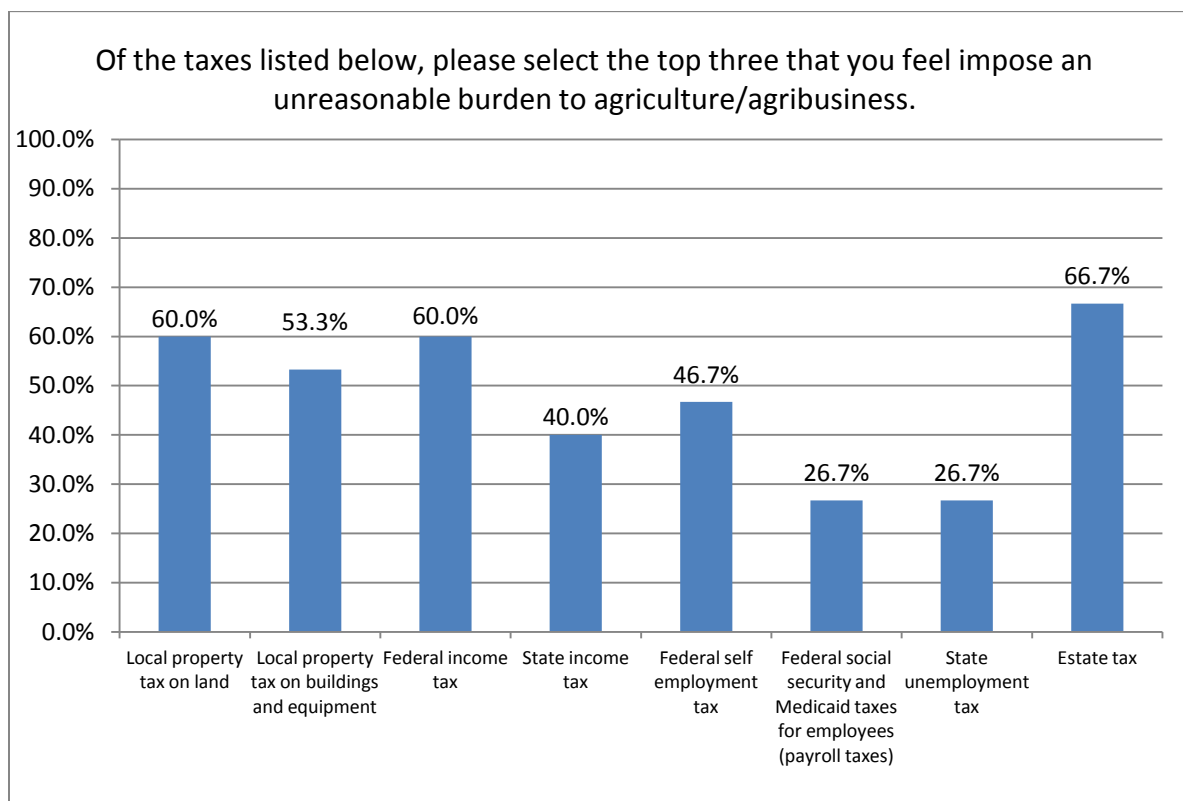
In the next five years, more than half (57 percent) think their production will increase and a little more than a quarter expect their production to stay the same. They expect the biggest influences on their business in the future to be:

- Production costs (87 percent)
- Export demand (60 percent)
- Land rental rates (60 percent)
- Regulatory costs (40 percent)

Producers see a number of challenges to their ability to remain profitable and in business. Two-thirds think that estate taxes impose an unreasonable burden on agriculture and agribusiness, and 60 percent think that federal income tax and local property taxes impose an unreasonable burden. (Figure 32) Other challenges are:

- Competition for land to rent
- Housing developments
- Difficulty getting loans
- Age of farmer
- Low profit margins
- Volatile markets
- Loss of tobacco quotas

Figure 32. Producer Survey



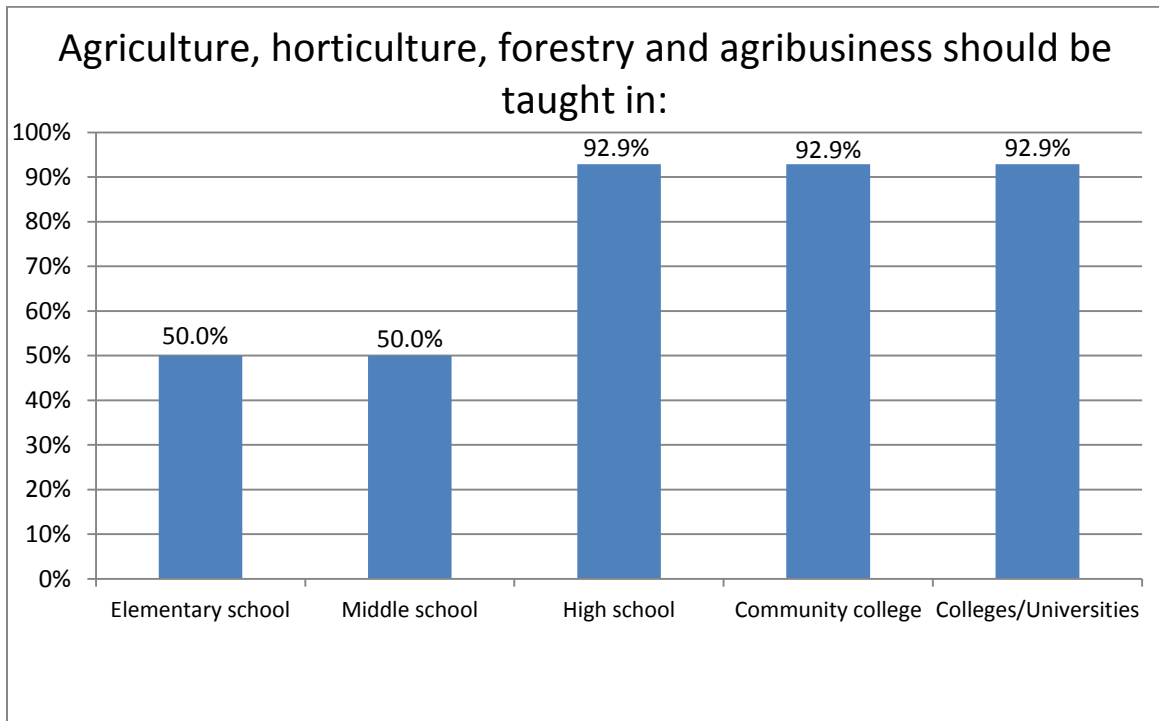
Jones County producers indicate that they think new markets and opportunities for diversification are important, but whether they would actually participate in new opportunities is another question:

- All of the producers surveyed think that it is important to have economic development support for agriculture and agribusiness in Jones County and to develop outlets, such as local farmers market, food festivals and agricultural fairs, for Jones County products. Almost all (80 percent) of the producers said that they would consider changing, replacing or diversifying the products they produce to take advantage of such marketing opportunities. However, according to the Jones County Health Department, which established a local farmers market in 2010, only eight farmers have participated at all and an average of only four participate each week.
- More than three-fourths see agritourism as an opportunity to expand and diversify agriculture and agribusiness in Jones County, but only one-third would like to explore agritourism opportunities.
- Although none of the landowners surveyed currently lease land for military operations, more than half said that they would enroll their farm or forest in a military compatible use incentive program, and all would consider participating in a program to provide the military biofuels feedstock and/or other agricultural products. None of the producers currently sells to state or federal organizations, the military, hospitals or schools.

Producers support agricultural education for students of all ages (especially high school and older) and education of the community on the social and economic contributions of agriculture. (Figure 33) More than two-thirds of producers think that educating the public would increase community support and improve their operating conditions. Producers are also interested in continuing education opportunities for themselves. They are especially interested in learning more about:

- Transition and estate planning (73 percent)
- Forest management (71 percent)
- Applying for federal and state contracts for their products (71 percent)
- Production of biofuel feedstock or woody biomass (60 percent)
- Good Agricultural Practices (60 percent)
- Developing regionally branded products (57 percent)
- Business planning (53 percent)
- Sales and marketing opportunities (50 percent)

Figure 33. Producer Survey



There may be room to educate producers about some of the economic resources and financial incentives available to them as well. About one-third are not aware of the Jones County Voluntary Agriculture Districts program and only half know about North Carolina's Conservation Easement Tax Credit. While most know about the Present Use Value Tax program, only 80 percent of surveyed producers are enrolled.

Programs and Resources That Support Working Lands

Below is a description of some of the many resources that support agriculture and forestry in Jones County.

Cost-Share Assistance Programs

Tax law allows landowners to expense up to \$10,000 of reforestation costs in the year the costs are incurred with an accelerated amortization rate of 60 months for the rest of the costs.

Forest Development Program (FDP)

The Forest Development Program provides up to 40 percent of the cost of site preparation and up to 60 percent for planting longleaf pines and hardwoods and timber stand improvement. Assistance is also provided for timber stand improvement activities. In 2009-2010, this program provided \$53,081 in cost-share assistance for 24 projects on 1,351 acres in Jones County, including site preparation, planting and timber stand improvement. The program is administered by the N.C. Forest Service.

Conservation Reserve Program (CRP)

The Conservation Reserve Program, which is administered by the Farm Service Agency, is available to qualified cropland and pastureland for management activities that protect water quality by reducing runoff and sedimentation. In Jones County there are 33 active contracts with total funding of \$41,592.

Wildlife Habitat Incentives Program (WHIP)

The Wildlife Habitat Incentives Program provides technical and cost-share assistance to improve wildlife habitat on private lands. The program, which is administered by the Natural Resources Conservation Service, provided \$6,972 for prescribed burning and fire breaks on 178.5 acres in Jones County in 2009. There were no Jones County applicants for funding in the 2010-2011 funding period.

Environmental Quality Incentives Program (EQIP)

The Environmental Quality Incentives Program, a conservation program that promotes the compatibility of agricultural production and environmental quality, offers financial and technical assistance to qualified farmers and ranchers to implement conservation practices on agricultural land. The program is administered by the Natural Resources Conservation Service. There was no funding through this program for Jones County in 2010.

Southern Pine Beetle Prevention Program

The Southern Pine Beetle Prevention Program, a cost-share assistance program established to help prevent outbreaks of the destructive pest, provides 50 percent cost share up to \$10,000 to reduce the stocking level of overstocked stands. There were six projects in Jones County in 2007, two in 2008, none in 2009 and two in 2010. The most recent beetle outbreak was in 1998-1999. The program is administered by the N.C. Forest Service.

The North Carolina Agricultural Cost Share Program (NCACSP)

The North Carolina Agricultural Cost Share Program was established in 1984 to reduce the number of non-point sources of water pollution on agricultural land by helping farmers implement Best Management Practices (BMPs). In 2010, the Jones County Soil and Water Conservation District spent nearly \$66,000 through NCACSP. (Jones County Soil and Water Conservation District)

Federal Farm Loan Programs

The USDA Farm Service Agency administers several farm loan programs through county offices that help farmers purchase land, feed, equipment or buildings; promote soil and water conservation; and help farmers survive natural disasters such as a drought or storm. Farmers may apply for loans through their local FAS office. The Jones County office provides nearly \$9.7 million annually in payments for all programs. (N.C. Farm Service Agency, 2011)

Direct Ownership Loans

These loans can be used to purchase farmland, improve soil and water conservation, and to construct or repair buildings.

Direct Operating Loans

These loans can be used to cover operating expenses such as the purchase of livestock, farm equipment, feed, seed, fuel, farm chemicals and insurance. In addition, farmers may use Direct Operating Loans, under certain conditions, to refinance debts, improve buildings, cover living expenses and pay for costs related to land and water development.

Emergency Loans

These loans are collateral-based loans designed to help farmers and ranchers who have lost at least 30 percent of their production in a county declared a disaster area. Loan recipients may borrow up to 100 percent of actual losses to a maximum of \$500,000. Emergency loans are considered a temporary source of credit until the farmer is able to access commercial credit.

Socially Disadvantaged Farmers and Ranchers Loans

These loans are available to groups that have been affected by prejudice because of race, ethnicity or gender. The program helps remove barriers to financial resources through direct farm ownership loans and farm operation loans.

Rural Youth Loans

This program provides loans of up to \$5,000 to rural youth ages 10 to 20 years for agricultural projects that have income potential. Loans can be used to buy equipment, supplies, livestock, seed or tools and to pay project operating expenses.

Loans for Beginning Farmers and Ranchers

The Farm Service Agency guarantees and makes loans to beginning farmers who aren't able to get financing from commercial lenders. Direct loans for farm ownership and operating expenses are up to \$300,000, and guaranteed loans are up to \$1,119,000. Beginning farmers may also participate in FSA's down payment program, joint financing program and receive preferential treatment during the sale of inventory farmland.

Direct and Counter-Cyclical Payment Program (DCP)

This program provides direct payments and counter-cyclical payments based on acres and payment yields established for the farm for eligible commodities. The counter-cyclical payments provide a safety net for farmers when commodity prices are low. This program is administered by the Farm Service Agency. In 2009, more than \$2.3 million was awarded in Jones County for 730 contracts. (N.C. Farm Service Agency, 2011)

Voluntary Agriculture Districts

Jones County is one of 78 counties in North Carolina that currently has a Voluntary Agriculture District (VAD) program. This program recognizes the importance of agriculture to North Carolina's economy, culture and natural heritage, and protects farmland from development, should the owner desire to retain land as a working farm or forest. Participating counties have adopted ordinances creating an Agricultural Advisory Board to administer the program. Responsibilities of the board include establishing the agricultural district, advising local governments and holding public hearings on projects that may affect agricultural viability. Among the benefits of VAD designation to qualified landowners are added protection from nuisance suits; required public hearings for proposed condemnation; eligibility for local, state and federal farmland preservation funds; and having an official voice in local government through the advisory board. Jones County has 1,200 acres in the VAD program. More than 46,000 acres of cropland and about 48,000 acres of timberland in the county are eligible to participate. (N.C. Cooperative Extension – Jones County)

Enhanced Voluntary Agricultural Districts

Jones County currently does not have an Enhanced Voluntary Agricultural Districts (EVAD) ordinance, which includes all the benefits of the VAD program plus conservation agreements between the landowner and the county that limits development for 10 years and provide

eligibility for a higher percentage of cost-share funds (up to 90 percent). Sixteen counties in the state have adopted the EVAD programs.

Present Use Value Tax Program

The present use value is the value of land, for property tax purposes, based on the land's ability to produce an income through agricultural, horticultural or forestry uses. This generally reduces a landowner's tax burden for qualifying property because the present-use value is usually lower than the market value. Currently 1,270 tracts representing 107,544 acres in Jones County are enrolled in the present-use value tax program. Land enrolled in the program is audited every eight years.

Conservation Easements

A conservation easement is a contract between a landowner and a public agency or qualified conservation organization under which a landowner agrees to keep the land in agriculture and permanently forego the right to develop or subdivide the land. Although there is sometimes grant money to help cover expenses, a landowner may incur significant costs (sometimes up to \$40,000) to establish this type of agreement. However, there are tangible federal and state income tax benefits and the intangible benefit of knowing that the land will stay in agriculture or forestry for generations to come. Many landowners are leery of conservation easements either because they don't understand them or because the agreements restrict a landowner's access to the land as collateral for a loan.

Term Conservation Easements

Term Conservation Easements are similar to Conservation Easements but do not continue in perpetuity.

Farm Transition Planning

Various colleges and universities have resources available to help landowners plan how to transfer their farmland and assets to the next generation, increasing the likelihood that the land will stay in agricultural or forestry production.

Right to Practice Forestry and Right to Farm

N.C. law limits the ability of local government to regulate forestry activities as long as the land is under the present-use-value tax program and is operated under a forest management plan.

N.C. law also protects farm and forestry operations from being declared a nuisance if they have been in operation for at least one year and are properly managed.

N.C. Forest Stewardship Program

The N.C. Forest Stewardship Program is a voluntary program for non-industrial private landowners who are committed to actively managing their land. Participants receive technical assistance in developing a stewardship management plan based on their objectives and are recognized for their achievements in promoting total forest resource management. The program is administered by the N.C. Forest Service.

Recommendations

This Farm and Forest Protection Plan provides an overview of the current state of agriculture and forestry in Jones County and outlines the challenges and opportunities landowners face as they strive to keep their businesses productive. After careful thought and consideration, the committee charged with producing this plan has put together a list of recommendations for local leaders on how best to support the community's agricultural and forestry interests and how to ensure their economic vitality going forward. While not exhaustive, this list addresses many of the areas of concern and opportunity that landowners, natural resource professionals and the general public have noted. The committee encourages the Jones County Board of Commissioners to endorse these recommendations and strategies, and to implement them according to the proposed timeline so that the county's working lands can remain a central part of the local economy and culture for generations to come. When endorsed, the Farm and Forest Protection Plan will be sent to N.C. Department of Agriculture for certification. Once the plan is certified, Jones County is placed in priority status for funding for agricultural development and farmland preservation projects from the Agricultural Development and Farmland Preservation Trust Fund and other state trust funds.

Jones County leaders should show public support for agriculture, agribusiness and forestry.

1. Adopt the Jones County Farm and Forest Protection Plan

The Agricultural Advisory Board should seek formal endorsement of this Farm and Forest Protection Plan by the Jones County Board of Commissioners and see that it is incorporated into all county land-use plans. Implementation will require cooperation among all county departments and funding from state and local sources.

Implementation Responsibility

Jones County Agricultural Advisory Board, Jones County Planning Department, N.C. Cooperative Extension Jones County Center, Jones County Farm Bureau, Jones County Soil and Water Conservation District, and other agencies as needed.

Timeline:

The Jones County commissioners should adopt the Farm and Forest Protection Plan no later than October 1, 2011 and then begin incorporating it into all their county land-use plans.

2. Advocate for Jones County and rural North Carolina at the county, state and federal level for programs and funds that support agriculture and forestry.

As North Carolina becomes increasingly more urban with population concentrated in the piedmont region of the state, Jones County and other low-growth or no-growth counties will see their influence in the state legislature and Congress further diluted. Without sufficient representation, the needs of rural communities will not be well known, understood or addressed in Raleigh or Washington. Power and decision making will be concentrated in the more populous regions of the state. Jones County leaders should work with other rural N.C. counties to ensure that their voice is heard. The development of a core group to advocate locally and regionally for agricultural policy will give support to this effort and allow for these issues to be addressed in a timely manner.

Implementation Responsibility

Jones County Agricultural Advisory Board, Jones County Board of Commissioners , Jones County Economic Development Commission, Jones County Planning Board, Jones County Farm Bureau, N.C. Cooperative Extension Jones County Center, N.C. Rural Economic Development Center and the voting public.

Timeline

This should begin immediately and be a continuous process with a core group identified by fall 2012.

Expand participation in the Voluntary Agricultural District program and have Agricultural Advisory Board explore an Enhanced Voluntary Agricultural District Program.

Only 25 percent of the qualifying land in Jones County is enrolled in the Voluntary Agricultural District program. Landowners need to be informed about the benefits of enrolling in the program including protection from nuisance suits, required public hearings for proposed condemnation and having an official voice in local government through the advisory board.

Jones County currently does not have an Enhanced Voluntary Agricultural District ordinance, which includes all the benefits of the VAD program plus conservation agreements between the landowner and the county that limits development for 10 years and provides potential eligibility for a higher percentage of cost-share funds. The county should adopt this ordinance and inform landowners of their eligibility and the program's benefits.

Implementation Responsibility

Jones County Agricultural Advisory Board, Jones County Planning Department, N.C. Cooperative Extension Jones County Center, N.C. Forest Service Jones County, USDA Natural Resource Conservation Service, Jones County Farm Bureau, Jones County Soil and Water Conservation District, and other agencies as needed.

Timeline

Upon adoption of the Farm and Forest Protection Plan, county teams should begin reviewing tax records to identify landowners who might qualify for the VAD program. In the beginning of 2012, county teams should plan workshops to educate landowners about VAD. Workshops should be held in 2012. By 2013, 50 percent of the qualified agricultural land should be enrolled in the program.

County commissioners should adopt the Enhanced Voluntary Agricultural District Program by December 2013. County teams should begin planning educational workshops in the winter of 2014 for implementation in 2014 and 2015. By 2015, 25 percent of qualified agricultural land should be enrolled in the program.

3. Include agriculture and agribusiness as a permanent part of the economic development plan for Jones County.

Jones County Economic Development Commission should develop a formal plan for attracting, retaining and expanding agriculture, forestry and agribusiness in the county. Jones County should:

- Hold forums for producers and agribusinesses to discuss their business needs and ideas, and to make recommendations on ways the county can support the industry.
- Explore opportunities for improving buying and selling powers through cooperative programs.
- Educate landowners, natural resource professionals and agribusiness owners about advances in biofuel research that may create markets for trees, energy grasses and starch/sugar-based crops in the near future.
- Expand broadband internet access to all rural parts of the county.
- Promote education in biofuels-related curriculum at nearby community colleges and universities.
- Promote agritourism as a way to expand business operations and increase income.
- Promote the N.C. Department of Agriculture and Consumer Services' "Food to Institution" initiative as an opportunity to broaden the market for local produce.

- Increase producer awareness of the N.C. Department of Agriculture’s “Goodness Grows,” “Farm Fresh” and “North Carolina General Store” programs and encourage participation in these programs.

Implementation Responsibility

Representatives from the farming and agribusiness communities, Jones County Economic Development Commission, Jones County Commission, N.C. Cooperative Extension Jones County Center, N.C. Forest Service – Jones County, Agricultural Advisory Board, N.C. Department of Agriculture, Lenoir Community College, N.C. Rural Economic Development

Timeline

Hold workshops for producers and agribusinesses in the winter of 2012 and annually thereafter. A plan to implement these recommendations should be adopted by December 2011. Full implementation of the recommendations should be accomplished by 2016.

Improve the health, productivity and sustainability of the county’s forest resources.

Increase the number of acres that are under an active forest management plan.

Because private, non-industrial landowners own 52 percent of the forestland in the county, the management decisions they make have a widespread and long-term effect on the local environment and economy. It is important to educate landowners about the benefits of having a management plan including tax breaks, qualification for cost-share and technical assistance, increased forest productivity and profitability, enhance wildlife habitat, aesthetic beauty, clean water and improved recreational opportunities.

Implementation Responsibility

N.C. Cooperative Extension Jones County Center, consulting foresters

Timeline

Local forestry professionals will encourage and educate forest landowners on the importance and benefits of having forest management plans. By 2015, there will be an increase in the county's private, non-industrial forestland under an active management plan.

Provide educational programs for beginning and experienced farmers.

1. Develop a mentor program for beginning farmers.

An aging farmer population and a trend toward absentee landowners in Jones County present a serious problem for the future of agriculture. A mentor program for beginning farmers would give experienced farmers an opportunity to share their expertise with young farmers who may or may not be related to them. This would help young farmers who are just getting started in the business and improve their potential for success. It may also provide an opportunity for retiring farmers to continue their legacy after retirement. The mentoring program should:

- Identify the skills and resources new farmers need to be successful in agriculture.
- Identify the obstacles that prevent or discourage new farmers from entering the profession.
- Identify experienced farmers who are interested in serving as mentors and pairing them with beginning farmers.
- Establish guidelines for a mentoring program including the type assistance mentors will provide and frequency of contact with beginning farmers.
- Compile information on educational, financial and technical resources available to would-be farmers.
- Provide regular opportunities for new farmers to meet with seasoned farmers to discuss issues related to running an agricultural business and tour established operations.
- Provide opportunities for prospective and beginning farmers to work in an internship role with experienced farmers where they can learn about running a business.
- Educate landowners about estate planning, inheritance taxes and other issues relevant to land transfer.

Implementation Responsibility

Jones County Agricultural Advisory Board, N.C. Cooperative Extension Jones County Center, Jones County Farm Bureau, Jones County School System, area colleges and community colleges, and other agencies as needed

Timeline

Begin developing program guidelines and objectives by June of 2012. Begin implementation by December 2012.

2. Educate young people about agriculture and encourage farming and agribusiness as career choices.

As farmers age, it's imperative that the next generation be educated in agriculture and be given the opportunity to explore farming and agribusiness as careers. Agriculture education needs to be promoted in the community as a whole – as part of the education curriculum in schools, through FFA, 4-H, civic groups and other public forums. To make this happen Jones County leaders should:

- Partner with the public school system, community colleges, secondary schools, N.C. Cooperative Extension, civic groups and other agencies and organizations to provide information about agriculture as a career.
- Support FFA, Agriculture in the Classroom, 4-H and other youth programs that expose young people to farming and agribusiness as a profession.
- Expand access to agriculture, horticulture, forestry and agribusiness education programs at area high schools, community colleges and colleges. Use successful farmers and business leaders as instructors and offer a hands-on curriculum.
- Identify programs at area colleges and community colleges that provide the business and technical skills needed to develop and manage a profitable small farm or agricultural business.

Implementation Responsibility

Jones County Agricultural Advisory Board, Jones County Planning Department, N.C. Cooperative Extension Jones County Center, Jones County School System, area colleges and community colleges, USDA Natural Resource Conservation Service, Jones County Farm Bureau, Jones County Soil and Water Conservation District, and other agencies as needed.

Timeline

Plan a strategy by January 2012. Begin implementation in the spring 2012.

Offer continuing education programs for farmers and agribusiness owners.

Jones County producers and agribusiness professionals are interested in learning how to expand, diversify and improve their businesses. Agriculture and natural resource professionals should provide a curriculum to address their interests in a format that meets the demands of farmers' work schedules. Farmers and agribusiness representatives should be involved in the planning process to improve attendance at workshops. Topics should include:

- New technologies in agriculture and forestry
- Transition and estate planning
- Forest management
- Applying for federal and state contracts for their products
- Production of biofuel feedstock or woody biomass
- Good Agricultural Practices
- Developing regionally branded products
- Business planning
- Sales and marketing opportunities
- Financial and technical assistance programs

Implementation Responsibility

Representatives from the local farming and agribusiness community, N.C. Cooperative Extension Jones County Center, N.C. Forest Service – Jones County, USDA Natural Resource Conservation Service, Jones County Farm Bureau, Jones County Soil and Water Conservation District, Jones County Economic Development Commission, N.C. Wildlife Resources Commission, USDA Farm Service Agency, Lenior Community College, Jones County Center and other agencies and organizations as appropriate.

Timeline

Develop a curriculum schedule by April 2012. Begin publicizing and offering classes in Fall 2012. Courses should be offered on an on-going basis.

Work to expand markets and improve access to markets for local products.

1. Implement a multi-county “buy local” campaign.

Encourage retailers in Jones and surrounding counties to buy local produce and educate the public about the many nutritional, economic and environmental benefits of buying locally grown products. Promote the *10 Percent Campaign* sponsored by N.C. Cooperative Extension, the Golden Leaf Foundation and the Center for Environmental Farming System., to encourage consumers to spend 10 percent of their grocery money on local products.

Implementation Responsibility

N.C. Cooperative Extension in Jones and surrounding counties, Jones County Agricultural Advisory Board, Jones County Economic Development Commission, area chambers of commerce, local agribusinesses and farmers

Timeline

Begin developing plans for a “Buy Local” campaign upon adoption of the Farm and Forest Protection Plan. Implement the plan by June 2012 and continue through 2016.

2. Support continued funding for the Highway 17 expansion.

The expansion of Highway 17 is critical to economic development in Jones County. For agriculture and agribusiness, it will improve access to markets, reduce business transportation costs, increase commercial and tourist traffic, and improve the county’s ability to attract and retain other related businesses. County leaders should work with legislative and congressional delegates, the N.C. Department of Transportation and other federal, state and regional agencies to ensure continued funding for the completion of the Highway 17 expansion.

Implementation Responsibility

Jones County Commission, Jones County Economic Development Commission, Highway 17 Association, Jones County Planning Department, Jones County town councils and other agencies as needed.

Timeline

Immediate and ongoing until the completion of the highway expansion.

Investigate the opportunity and support funding of Cost of Services Study for Jones County.

Farms and forestland demand less from county services than residential developments do. Yet the perception remains that residential development presents the best source of additional revenue for the county. While costs of services studies have been conducted in other parts of the state, there has been no study focused on Eastern North Carolina. Jones County would be an ideal county to participate in such a study, which would help solidify agriculture’s standing in its contributions to the county.

Implementation Responsibility

Agricultural Advisory Board, N.C. Cooperative Extension Jones County Center, Jones County Soil and Water Conservation District, N.C. Division of Forest Resources Jones County, N.C. Department of Agriculture and Consumer Services, Jones County Farm Bureau, area colleges and universities, and other related agencies.

Timeline

By fall of 2012, contact researchers who will conduct the study. Agencies and groups participating in the study will assist as needed and will provide details, data and access to complete the study. The study should be compiled and formatted for presentation to the Jones County Board of Commissioners by summer 2013. This study should be made available to the general public after presentation to the board.

References

- American Farmland Trust, *Cost of Community Services*. <http://www.farmland.org>
- Brown, Mark J., U.S. Department of Agriculture. *Forest Statistics for North Carolina*, 2002.
- Croatan National Forest, www.fs.usda.gov.
- Department of the Army, Office of Small Business Program, www.sellingtoarmy.info
- Highway 17 Association, April 2011.
- Hofmann Forest. March 2011.
- Jeuck, James and Robert Bardon. 2009 *Income of North Carolina Timber Harvested and Delivered to Mills*. North Carolina Cooperative Extension. Raleigh, North Carolina.
- Jeuck, James and Doug Duncan, *Economics of Harvesting Woody Biomass in North Carolina*. N.C. Cooperative Extension, 2009
- Jones County Economic Development Office, April 2011.
- N.C. Cooperative Extension – Jones County
- N.C. Department of Agriculture and Consumer Services.
www.ncagr.gov/stats/codata/jones.pdf
- N.C. Department of Agriculture and Consumer Services,
www.ncagr.gov/stats/economic/economic.htm
- N.C. Department of Agriculture and Consumer Services. *Farm Income Exports: Prices Received and Prices Paid*, N.C. Agricultural Statistics. www.ncagr.gov/stats/2010agstat
- N.C. Department of Agriculture and Consumer Services. *North Carolina Agricultural Water Use*, 2009.
- N.C. Department of Commerce, www.nccommerce.org
- N.C. Department of Commerce, Division of Community Planning, 21st Century Communities Program, *Jones County North Carolina Demographic Profile*.
- N.C. Department of Environment and Natural Resources, Division of Forest Resources,
www.dfr.state.nc.us/contacts/jones.htm

N.C. Department of Environment and Natural Resources, Division of Forest Resources Jones County. March 2011.

N.C. Department of Transportation

N.C. Farm Service Agency

North Carolina Farm Transition Network, www.ncftn.org

N.C. Office of State Budget and Management,
www.osbm.state.nc.us/ncosbm/facts_and_figures

N.C. State University, College of Natural Resources. 2010.

N.C. State University, *State Agribusiness Values*. www.ag-econ.ncsu.edu/faculty

N.C. State University, *Agriculture and Agribusiness in Jones County, 2008*, IMPLAN, Mig, Inc.,
www.ces.ncsu.edu/depts/agecon/counties/jones

N.C. Utilities Commission, www.ncuc.commerce.state.nc.us

State Climate Office of North Carolina, www.nc-climate.ncsu.edu

U.S. Census, 2000, 2009, 2010.

U.S. Department of Agriculture, *2008 County-Level Poverty Rates for N.C.*,
www.ers.usda.gov/data/povertyrates

U.S. Department of Agriculture, Economic Research Service, www.ers.usda.gov/statefacts/nc

U.S. Department of Agriculture, National Agricultural Statistics Service, *2002 Census of Agriculture*.

U.S. Department of Agriculture, National Agricultural Statistics Service, *2007 Census of Agriculture*.

U.S. Department of Agriculture, National Agricultural Statistics Service, *2007 Census of Agriculture County Data*, Washington, D.C., 2009.

http://www.agcensus.usda.gov/publications/2007/full_report/volume_1_chapter_2_county_level/NorthCarolina/st37_2_007_007.pdf

U.S. Department of Agriculture, Soil Conservation Service and Forest Service, *Soil Survey of Jones County, North Carolina*, 1981

U.S. Department of Agriculture, *State Facts*, www.ers.usda.gov/statefacts/nc

Walden, Michael, *County and Regional Agribusiness Values*. N.C. State University, Department of Agriculture and Resource Economics.

Wubneh, Mulatu, *U.S. Highway 17 and Its Impact on the Economy of Eastern North Carolina*. East Carolina University, May 2008.

Surveys: Jones County Non-Farmer Survey, Agribusiness Survey and Producer Survey, 2011.

2010 Census Redistricting Data (Public Law 94-171)

Appendixes

Appendix A

JONES COUNTY

VOLUNTARY AGRICULTURAL DISTRICTS ORDINANCE

ARTICLE I TITLE

This ordinance, adopted by the Board of Commissioners of Jones County, North Carolina, shall be known as the Jones County Voluntary Agricultural Districts Ordinance.

ARTICLE II AUTHORITY

The articles and sections of this ordinance are adopted pursuant to the authority conferred by N. C. General Statutes 106-735 through 106-743 and Chapter 153A.

ARTICLE III PURPOSE

The purpose of this ordinance is to promote the health, safety, rural agricultural values, and general welfare of the county, and more specifically, increase identity and pride in the agricultural community and its way of life; encourage the economic and financial health of farming; increase protection from undesirable, non-farm development; and increase the protection of farms from nuisance suits and other negative impacts on properly managed farms.

ARTICLE IV DEFINITIONS

Advisory Board: The Jones County Agricultural Advisory Board.

Board of Commissioners: The Board of Commissioners of Jones County, North Carolina.

Chairman: Chairman of the Jones County Agricultural Advisory Board.

District: A voluntary agricultural district established under the terms and conditions of this program by the Board of Commissioners.

ARTICLE V AGRICULTURAL ADVISORY BOARD

A. Creation

In accordance with N.C.G.S. 106-739, the Board of Commissioners hereby establishes an Agricultural Advisory Board to implement the provisions of this ordinance.

B. Appointments and Memberships

The Advisory Board shall consist of seven (7) members appointed by the Board of Commissioners.

C. Membership Requirements

1. Each board member shall be a county resident, and there shall be one (1) board member from each County Township.
2. All of the members shall be actively engaged in farming.
3. All members shall be selected for appointment by the Board of Commissioners from the names of individuals submitted to the Board of Commissioners by the Jones Soil and Water Conservation District, the North Carolina Cooperative Extension Service, the Farm Service Agency Committee and the Jones County Farm Bureau.

D. Tenure.

The members are to serve for terms of three years, except that the initial board is to consist of two appointees for a term of one year, two appointees for terms of two years, and three appointees for a term of three years. Thereafter, all appointments are to be for terms of three years, with unlimited reappointments permitted.

E. Vacancies.

Any vacancy on the Advisory Board is to be filled by the Board of Commissioners for the remainder of the unexpired term following the same procedure as for the initial appointment.

F. Removal for Cause.

Any member of the Advisory Board may be removed for cause by the Board of Commissioners.

G. Funding

- (a) Compensation. The per meeting compensation of the members of the Advisory Board, if any, shall be fixed by the Board of Commissioners.
- (b) Appropriations for performance of duties. Funds shall be appropriated by the Board of Commissioners to the Advisory Board to perform its duties. A budget request will be presented to the Board of Commissioners annually.

H. Procedures

The Advisory Board shall adopt rules of procedure which are consistent with the enabling legislation and other applicable statutes.

1. Chairperson; Vice Chairperson

The Advisory Board shall elect a chairperson and vice-chairperson each year at its first meeting of the fiscal year. The chairperson shall preside over all regular or special meetings of the board. In the absence or disability of the chairperson, the vice-chairperson shall preside and shall have and exercise all the powers of the chairperson so absent or disabled. Additional officers may be elected as needed.

2. Jurisdiction and Procedures: Supplementary Rules.

The jurisdiction and procedures of the Advisory Board are set out in this article, except that the board may adopt supplementary rules of procedure not inconsistent with this article or with other provisions of law.

3. Board Year.

The Advisory Board shall use the County fiscal year as its meeting year.

4. Meetings.

Meetings of the Advisory Board, following such notice as required by this Article, shall be held at the call of the Chairperson, Vice Chairperson, two (2) or more members, or at such other times as the Advisory Board in its rules of

procedure may specify. A regular meeting shall be held at least quarterly. A quorum shall consist of a majority of the members of the Advisory Board.

5. Voting.

The concurring vote of a majority of the members of the Advisory Board shall be necessary to reverse any order, requirement, decision or determination of any administrative official or agency, to decide in favor of an applicant, or to pass upon any other matter on which it is required to act under this article.

6. Records.

The Advisory Board shall keep minutes of the proceedings showing the vote of each member upon each question, or if absent or failing to vote, indicating such fact, and shall keep records of its examinations and other official actions, all of which shall be immediately filed in the office of the Advisory Board and shall be a public record.

7. Administrative Services.

The North Carolina Cooperative Extension Service shall serve the Advisory Board for record keeping, correspondence, and application procedure under this article together with such other services the Advisory Board needs to complete its duties.

I. Duties

The Advisory Board shall:

1. Review and approve applications for qualified farmland and Districts.
2. Hold public hearings pursuant to Article X of this program.
3. Advise the Board of Commissioners on projects, programs, or issues affecting the agricultural economy or activities within the county and that will affect agricultural districts.
4. Provide quarterly updates to the Board of Commissioners as to all matters considered and actions taken, including those items required to be reported annually to the North Carolina Commissioner of Agriculture under Article XVI, Paragraph A.

5. Perform other related tasks or duties assigned by the Board of Commissioners.

ARTICLE VI CREATION OF VOLUNTARY AGRICULTURAL DISTRICTS

A. Implementation

In order to implement the purposes stated in Article III, this program provides for the creation of Districts which shall meet the following standards:

1. A District, when initially established, shall contain a minimum of 5 contiguous acres of qualified farmland, or, two or more qualified farms which contain a minimum of 5 acres in total and are located within one (1) mile of each other; and
2. The landowner(s) requesting inclusion in the District shall execute an agreement with the county to sustain agriculture in the District in accordance with Article VII of this program. Said agreement shall be in a form which is reviewed and approved by the Advisory Board.

Upon the recommendation of the Voluntary Agricultural District Advisory Board, the Board of County Commissioners may decrease or increase the number of Districts as set forth here.

B. Education

The County may take such action as it deems appropriate through the Advisory Board or other entities or individuals to encourage the formation of the Districts and to further their purposes and objectives, including the implementation of a public information program to reasonably inform landowners of the agricultural district program.

C. Withdrawal

In the event that one or more participants in a District withdraw and the acreage becomes less than the minimum acreage required or results in the remaining land being noncontiguous, a District will continue to exist so long as there is one qualifying farm.

ARTICLE VII CERTIFICATION AND QUALIFICATION OF FARMLAND

A. Requirements

In order for farmland to qualify for participation under the terms of this program, it shall meet the following requirements:

1. The farmland shall be real property;
2. The farm property shall be participating in the farm present-use-value taxation program established by G.S. 105-277.2 through 105-277.7, or is otherwise determined by the county to meet all the qualifications of this program set forth in G.S. 105-277.3;
3. The property shall be certified by the Natural Resources Conservation Service of the United States Department of Agriculture, in consultation with the North Carolina Cooperative Extension Service and the Farm Service Agency, as being a farm on which at least two-thirds of the land is composed of soils that:
 - (a) Are best suited for providing food, seed, fiber, forage, timber, and horticultural crops, including Christmas trees and ornamentals;
 - (b) have good soil qualities;
 - (c) are favorable for all major crops common to the county where the land is located;
 - (d) have a favorable growing season; and
 - (e) receive the available moisture needed to produce high yields for an average of eight out of ten years; or

Soils on which at least two-thirds of the land has been actively used in agricultural, horticultural, or forestry operations as defined in G.S. 105-277.2 (1, 2, 3) during each of the five previous years, measured from the date on which the determination must be made as to whether the land in question qualifies;

4. The property is the subject of a conservation agreement, as defined in G.S. 121-35, between the county and the owner of such land that prohibits non-farm use or development of such land for a period of at least ten years, except for the creation of not more than three lots that meet applicable county watershed and subdivision regulations, or the regulations of any municipality which apply to the farm property. The property owner may voluntarily revoke this conservation agreement by submitting a written request to the board in accordance with Article IX.

ARTICLE VIII
APPLICATION, APPROVAL, AND APPEAL PROCEDURE

A. Application Procedure

1. A landowner may apply to participate in the program by making application to the Chairperson of the Advisory Board or a designated staff person. The application shall be on forms provided by the Advisory Board. The application to participate in a District may be filed with the certification for qualifying farmland.
2. An agreement to sustain, encourage, and promote agriculture must be executed by the landowner and recorded with the Advisory Board.
3. Payment of all fees that may from time-to-time be adopted by the Board of Commissioners must be submitted with the application.

B. Approval Process

Upon review by the staff of the written certification and application submitted by the property owner, the Board shall meet within 30 days if possible to approve or disapprove the application. The chairman shall notify the applicants by first class mail of said approval or disapproval of participation in the district.

Upon receipt of an application, the chairman of the Agricultural Board will forward a copy of the application to the County Manager, the County Tax Assessor, and the County Planning Board which may be asked to provide comments, if any, to the Agricultural Board prior to the vote on the application.

C. Appeal

If an application is denied by the Advisory Board, the petitioner shall have thirty (30) days to appeal the decision to the Board of Commissioners. Such appeal shall be presented in writing. The decision of the Board of Commissioners is final.

ARTICLE IX REVOCATION OF PRESERVATION AGREEMENTS

By written notice to the board, a landowner of qualifying farmland may revoke the preservation agreement formulated pursuant to Article VII (4) of this ordinance, or the board may revoke same preservation agreement based on noncompliance by the landowner. Such revocation shall result in loss of qualifying farm status, and consequently, loss of eligibility to participate in a District and the benefits thereof. Revocation by a landowner of a preservation agreement and the resulting loss

of qualifying farmland status for the purpose of participation in a District shall in no way affect the eligibility of the land to be taxed at its present use value as provided in N.C.G.S. 105-277.2 through N.C.G.S. 105-277.6. If a portion of a district is removed for any reason after being established by this program, the remaining qualified farms may remain in the program, provided they meet all other requirements except the minimum area requirements of Article VI.

ARTICLE X PUBLIC HEARINGS

A. Purpose

Pursuant to N.C.G.S. 106-740, no state or local public agency or governmental unit may formally initiate any action to condemn any interest in qualifying farmland within a District until such agency or unit has requested the Advisory Board to hold a public hearing on the proposed condemnation. The procedures for such hearings shall be as set forth below.

B. Procedures

1. Establish Public Hearing.

Upon receipt of a request for a public hearing, the Advisory Board shall have 30 days after receiving a request under this article to hold a public hearing and submit its findings and recommendations to the agency that proposed the condemnation. No formal initiation of condemnation shall be initiated while the proposed condemnation is properly before the board within the time limitations set forth in this article.

2. Notice of Public Hearing.

The Advisory Board shall run a notice of the public hearing in a newspaper having general circulation in Jones County at least 10 days prior to the date established for the hearing. The notice shall contain the date, time, and place of the hearing and shall provide the name of the agency requesting the hearing and the purpose of the condemnation.

3. Public Hearing.

The Advisory Board shall conduct the public hearing and receive information and comments from the agency requesting the condemnation action and the citizens of Jones County. Additionally, the Advisory Board shall review the following:

- (a) Has the need for the project requiring the condemnation been satisfactorily shown by the agency requesting the action?
- (b) Has a financial impact analysis been conducted by the agency seeking the action?
- (c) Have alternatives been considered to the proposed action that are less disruptive to the agricultural activities and farmland base of the District within which the proposed action is to take place?

The Advisory Board shall invite and allow input by the North Carolina Cooperative Extension Agent, U.S.D.A. Natural Resources Conservationist, Farm Service Agency Personnel, and may consult with any other individuals, agencies or organizations, public or private, necessary to the Advisory Board's review of the proposed action.

- (4) Findings and Notification. Within 10 days after the public hearing, the Advisory Board shall make a report containing its findings and be conveyed recommendations regarding the proposed action. The report shall be conveyed to the decision-making body of the agency proposing acquisition and made available to the public for comment.

ARTICLE XI
RECORD NOTICE OF PROXIMITY TO VOLUNTARY
AGRICULTURAL DISTRICT

A. Procedure

When Jones County computerizes its County Land Records System, the following requirements outlined in this section shall be implemented and enforced. Upon certification of qualifying farmland and designation of real property as a District, the title to that qualifying farmland and real property which is contained in the Jones County Land Records System shall be changed to include a notice reasonably calculated to alert a person researching the title of a particular tract that such tract is located within one-half aerial mile of a District.

B. Limit of Liability

In no event shall the County or any of its officers, employees, or agents be held liable in damages for any misfeasance, malfeasance, or nonfeasance occurring in good faith in connection with the duties or obligations imposed by this ordinance.

C. No Cause of Action

In no event shall any cause of action arise out of the failure of a person researching the title of a particular tract to report to any person the proximity of the tract to a qualifying farm or District as defined in this ordinance.

ARTICLE XII
SUBDIVISION ORDINANCE REVIEW

Developers of major subdivisions or planned unit developments shall designate on preliminary development plans, the existence of the Districts within 1/2 aerial mile of the proposed development.

ARTICLE XIII
LAND USE INCENTIVES TO VOLUNTARY
AGRICULTURAL DISTRICT FORMATION

A. Purpose

The purpose of this section is to help meet the needs of agriculture as an industry and prevent conflicts between voluntary agricultural district participants and non-farm landowners in proximity to Districts.

The Advisory Board, in cooperation with the County, shall take measures as set forth below to provide notification to property owners, residents, and other interested persons adjacent to any designated District with a goal of informing all current and potential residents and property owners in and adjacent to a District, that farming and agricultural activities may take place in this District any time during the day or night.

B. Signage

Signs, with dimensions of 18"x24", identifying approved Districts shall be placed along the rights-of-way of major roads that pass through or next to those Districts. There shall at least be one sign posted upon entering and one sign posted upon exiting or as many as may be deemed appropriate by the Advisory Board, or its administrative agent for the county's agricultural District program.

- (a) Signs identifying approved agricultural districts shall be placed among the rights-of-way of major roads leading into the County. Members of the Agricultural District will place signs on their individual farms denoting their agricultural district membership in a way calculated to reasonably notify the public and adjoining of the presence of the farm property.
- (b) Maps identifying approved agricultural districts shall be provided on the Jones County website, and can be viewed in the following County offices:
 - 1. Register of Deeds;
 - 2. Natural Resources Conservation Service;
 - 3. North Carolina Cooperative Extension Service;
 - 4. Tax Office;
 - 5. Soil and Water Conservation District; and
 - 6. Any other such agency or office the Advisory Board deems appropriate, such as Jones County Planning and Inspections Department.
- (c) The following notice provided by the Advisory Board shall be displayed in a prominent position in the office of the Register of Deeds and the public access area in the Jones County Tax Department:

NOTICE TO REAL ESTATE PURCHASERS IN JONES COUNTY JONES COUNTY AGRICULTURAL DISTRICTS

Jones County has established Agricultural Districts to protect and preserve agricultural lands and activities. These Districts have been developed and mapped to inform all purchasers of real property that certain agricultural activities, including but not limited to pesticide spraying, manure spreading, machinery and truck operations, livestock operations, sawing, and similar activities may take place in these Districts any time during the day or night.

ARTICLE XIV CONSULTATION AUTHORITY

The Advisory Board may consult with the North Carolina Cooperative Extension Service, the Natural Resources Conservation Service office, the North Carolina Department of Agriculture and Consumer Services, and with any other individual agency, or organization the Advisory Board deems necessary to properly conduct its business.

ARTICLE XV NORTH CAROLINA AGENCY NOTIFICATION

A. Recording the Program Ordinance

An official copy of this program ordinance shall be recorded with the North Carolina Commissioner of Agriculture's office after adoption. At least once a year, the Board shall submit a written report to the North Carolina Commissioner of Agriculture and County Commissioners including the status, progress and activities of the County's District program to include but not limited to:

1. Number of landowners enrolled;
2. Number of acres for which applications have been made;
3. Number of acres certified;
4. Number of acres denied;
5. Date acres certified

**ARTICLE XVI
LEGAL PROVISIONS**

A. Severability

If any article, section, subsection, clause, phrase or portion of this ordinance is for any reason invalid or unconstitutional as determined by any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this ordinance.

B. Conflict with other ordinances and statutes.

Whenever the provisions of this ordinance conflict with other ordinances of Jones County, this ordinance shall govern. Whenever the provisions of any federal or state statute require more restrictive provisions than are required by this ordinance, the provisions of such statute shall govern.

C. Amendments.

This ordinance may be amended from time to time after a public hearing, notice of which shall be sent to program participants by first class mail 30 days prior to the hearing, and in consultation with the Advisory Board to the Board of Commissioners.

**ARTICLE XVII
ENACTMENT**

The Board of Commissioners hereby adopts and enacts the preceding articles and sections of this ordinance, effective immediately.

Adopted this the _____ day of _____, 2007.

_____, Chairman
Jones County Board of Commissioners

Attest:

_____, Clerk to the Board

Appendix B

Agricultural Producer, Agribusiness and Non-Farm Surveys

Mount Olive College conducted surveys and interviews in Jones County to assess trends, issues and opportunities the community as a whole identifies for agriculture. The surveys targeted producers/landowners, agri-businesses and the general non-farm public.

The Jones County team distributed the surveys through their meetings, to their advisory boards and on their websites. The team also provided names of key people in the county for Mount Olive College to interview. All the survey and interview responses were compiled to determine the responses.

Copies of the three surveys follow this page.